

SUPPLEMENTAL VOLUMES
TO THE
WORKS
OF
SIR WILLIAM JONES.

CONTAINING THE WHOLE OF THE
ASIATICK RESEARCHES
HITHERTO PUBLISHED,
EXCEPTING THOSE PAPERS ALREADY INSERTED IN HIS WORKS.

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ASIATICK RESEARCHES.

THE LUNAR YEAR OF THE HINDUS.—See the Works of Sir William Jones, Vol. I. p. 375.

ON EGYPT, AND OTHER COUNTRIES ADJACENT TO THE CA'LI RIVER, OR NILE OF ETHIOPIA.

From the ancient Books of the HINDUS.

By Lieut. FRANCIS WILFORD.

SECTION THE FIRST.

MY original design was to compose a dissertation entirely *geographical* on *Egypt* and other countries bordering upon the *Nile*; but as the *Hindus* have no regular work on the subject of geography, or none at least that ever came to my knowledge, I was under a necessity of extracting my materials from their historical poems, or, as they may be called more properly, their legendary tales; and in them I could not expect to meet with requisite data for ascertaining the relative situations of places: I was obliged, therefore, to study such parts of their ancient books as contained geographical information; and to follow the track, real or imaginary, of their deities and heroes; comparing all their legends, with such accounts of holy places in the regions of the west, as have been preserved by the *Greek* mythologists, and endeavouring to prove the identity of places by the similitude of names, and of

remarkable circumstances; a laborious, though necessary operation, by which the progress of my work has been greatly retarded.

The mythology of the *Hindus* is often inconsistent and contradictory; and the same tale is related many different ways. Their physiology, astronomy, and history, are involved in allegories and enigmas, which cannot but seem extravagant and ridiculous; nor could any thing render them supportable, but a belief that most of them have a recondite meaning; though many of them had, perhaps, no firmer basis than the heated imagination of deluded fanatics, or of hypocrites interested in the worship of some particular deity. Should a key to their eighteen *Purânas* exist, it is more than probable that the wards of it would be too intricate or too stiff with the rust of time for any useful purpose; yet, as a near coincidence between *proper names* and *circumstances*, could scarce have been accidental, some light might naturally be expected from the comparison, which I resolved to make. It is true, that an accurate knowledge of the old northern and western mythology, of the *Coptick* and other dialects now used in countries adjacent to the *Nile*, of eastern languages, and above all, of *Sanſcrit*, may be thought essentially necessary for a work of this nature; and unfortunately I possess few of these advantages; yet, it will not, I hope, be considered as presumptuous, if I present the *Asiatick* Society with the result of my inquiries, desiring them to believe that when I seem to make any positive assertion, I only declare my own humble opinion, but never mean to write in a dogmatical style, or to intimate an idea, that my own conviction should preclude in any degree the full exercise of their judgment.

So striking, in my apprehension, is the similarity between several *Hindu* legends and numerous passages in Greek authors concerning the *Nile*, and the countries on its borders, that, in order to evince their identity, or at least their affinity, little more is requisite than barely to exhibit a comparative view of them. The *Hindus* have no ancient civil history, nor had the *Egyptians* any work purely historical; but there is abundant reason to believe, that the *Hindus* have preserved the religious fables of *Egypt*, though we cannot yet positively say by what means the *Brâhmens* acquired a knowledge of them. It appears, indeed, that a free communication formerly subsisted between *Egypt* and *India*, since PTOLEMY acknowledges himself indebted for much information to many learned *Indians*, whom he had seen at *Alexandria*; and LUCIAN informs us, that pilgrims from *India* resorted to *Hierapolis* in *Syria*; which place is called in the *Purânas*, at least as it appears to me, *Mahâbbâgâ*, or the station of the Goddess *Dévî*, with that epithet; even to this day the *Hindus* occasionally

occasionally visit, as I am assured, the two, *Jwálá-muc'bis*, or Springs of Naphtha, in *Cus'ba-dwípa within*, the first of which, dedicated to the same goddess with the epithet *Anáyásá*, is not far from the *Tigris*; and STRABO mentions a temple on that very spot, inscribed to the goddess *Anáias*.

The second, or great, *jwálá-muc'bi*, or spring with a *flaming mouth*, is near *Báku*; from which place, I am told, some *Hindus* have attempted to visit the *Sacred Islands* in the west; an account of which, from the *Puránas*, will (if the publick approve this essay) be the subject of a future work. A *Yógi*, now living, is said to have advanced with his train of pilgrims, as far as *Moscow*; but, though he was not ill used by the *Russians*, they flocked in such crowds to see him, that he was often obliged to interrupt his devotions, in order to satisfy their curiosity: he, therefore, chose to return; and, indeed, he would probably have been exposed to similar inconvenience in the *Sacred Isles*, without excepting *Breta-st'hán*, or the *place of religious duty*. This western pilgrimage may account for a fact mentioned, I think, by CORNELIUS NEPOS (but, as printed books are scarce in this country, I speak only from recollection), that certain *Indi*, or *Hindus*, were shipwrecked on the shores of the *Baltick*: many *Bráhmens*, indeed, assert, that a great intercourse anciently subsisted between *India* and countries in the west; and, as far as I have examined their sacred books, to which they appeal as their evidence, I strongly incline to believe their assertion.

The *Sanfrit* books are, both in size and number, very considerable; and, as the legends relating to *Egypt* lie dispersed in them without order or connexion, I have spared neither labour nor expence to collect them; but, though I have in that way done much, yet much remains to be done, and must be left, I fear, to others, who can better afford to make a collection so voluminous and expensive: I had the happiness to be stationed at *Banares*, the centre of *Hindu* learning; and, though my laborious duties left me very little time for literary pursuits, yet my appointment supplied me with means to defray the necessary charges, which I could not otherwise have afforded. To the friendship of Mr. DUNCAN I am deeply indebted: his encouragement and support had a great effect on the *Bráhmens*; nor should I, without his assistance, have met with that success which has rewarded my labour. It will appear in the course of my essay, that I have derived infinite advantage from the Travels of Mr. BRUCE, to which I so frequently refer, that it was hardly possible to cite them constantly; and I make this general acknowledgment of my obligation to him: even the outline of the map prefixed to this dissertation, is borrowed
from

from his elaborate Chart. Those, who may follow me in this path, will add considerably, no doubt, to the materials which I have amassed, and may possibly correct some errors, into which I may have fallen: happy shall I be to have led the way to discoveries, from which very important conclusions may be deduced.

The *Hindus*, I believe, have no work professedly written on *popular* geography, that is, on the face of this globe according to the system of their astronomers: they have large charts of the universe according to the *Pauránicas*, with explanatory notes, and, perhaps, with treatises to elucidate their fables; and some of the *Puránas* contain lists of countries, rivers, and mountains, with a general division of the known world; which are also to be found in a few of their astronomical books. The *Baudhas*, or followers of JINA, have a small tract on geography, entitled *Trilóca derpan*, or *The Mirror of three Worlds*, which Mr. BURROW was so kind as to lend me: it is a most extravagant composition; and such is the antipathy of the *Bráhmens* to the *Jainas*, that no explanation of it can be expected from them; but, should I have leisure and opportunity to examine it, the task may be attended with some advantage; though the proper names are in general changed and accommodated to the heterodox system.

According to the orthodox *Hindus*, the globe is divided into two hemispheres, both called *Méru*; but the superior hemisphere is distinguished by the name of *Su-méru*, which implies beauty and excellence, in opposition to the lower hemisphere, or *Cuméru*, which signifies the reverse: by *Méru*, without any adjunct, they generally mean the higher, or *northern* hemisphere, which they describe with a profusion of poetical imagery, as the seat of delights; while they represent *Cuméru* as the dreary habitation of demons, in some parts intensely cold, and in others so hot, that the waters are continually boiling. In strict propriety, *Méru* denotes the pole and the polar regions; but it is the celestial north pole, round which they place the gardens and metropolis of INDRA, while YAMA holds his court in the opposite polar circle, or the station of *Aśuras*, who warred with the *Suras*, or Gods of the firmament. There is great reason to believe, that the old inhabitants of the southern hemisphere, among whom were the *Ethiops* and *Egyptians*, entertained a very different opinion of their own climate, and of course represented the summit of the northern hemisphere as a region of horrors and misery; we find accordingly, that the *Greeks*, who had imported most of their notions from *Egypt*, placed their hell under the north pole, and confined CRONOS to a cave in the frozen circle. In the *Puránas* we meet with strong indications of a *terrestrial paradise*, different from that
of

of the general *Hindu* system, in the southern parts of *Africa*; and this may be connected with the opinion adopted by the *Egyptians*, who maintained it against the *Scythians*, with great warmth (for the ancient inhabitants of the two hemispheres were perpetually wrangling on their comparative antiquity), that the *Ethiopians* were the oldest nation on earth.

Several divisions of the old continent were made by different persons at different times; and the modern *Bráhmens* have jumbled them all together: the most ancient of them is mentioned in the *Puránas*, entitled *Váyu*, and *Bráhmánda*; where that continent is divided into seven *dwipas*, or countries with *water on two sides*, so that, like *jazírah* in *Arabick*, they may signify either *islands* or *peninsulas*. They are said to be wholly surrounded by a vast ocean, beyond which lie the region and mountains of *Attala*; whence most probably the *Greeks* derived their notion of the celebrated *Atlantis*, which, as it could not be found after having once been discovered, they conceived to have been destroyed by some shock of nature; an opinion formed in the true *Hindu* spirit; for the *Bráhmens* would rather suppose the whole economy of the universe disturbed, than question a single fact related in their books of authority. The names of those islands, or peninsulas, are *Jambu*, *Anga*, *Yama*, *Yamala* or *Malaya*, *Sanc'ba*, *Cus'ba*, and *Varába*.

In the centre is *JAMBU*, or the inland part of *Asia*; to the east of it are *Anga*, *Yama*, and *Yamala*, reckoned from north to south; to the west *Sanc'ba*, *Cus'ba*, and *Varába*, reckoned from south to north: *Yama* and *Cus'ba* are said to be due east and west, in respect of *India*; and this is indubitably proved by particular circumstances.

Sanc'ba dwíp is placed in the south-west, supposed to be connected with *Yamala*, and with it to embrace an immense inland sea; between them the *Hindus* place *Lancà*, which they conceive extended to a considerable distance as far as the equator; so that *Sanc'ba* must be part of *Africa*, and *Yamala*, or *Malaya*; the peninsula of *Malacca*, with the countries adjacent. This notion of a vast inland sea *PTOLEMY* seems to have borrowed from the *Hindus*, whom he saw at *Alexandria*; for, before his time, there was no such idea among the *Greeks*: he calls it *Hippados*; a word, which seems derived from *Abdhi*, a general name for the sea in the language of the *Bráhmens*. We may collect from a variety of circumstances, that *Cus'ba dwíp* extends from the shores of the *Mediterranean*, and the mouths of the *Nile*, to *Serbind*, on the borders of *India*.

In a subsequent division of the globe, intended to specify some distant countries with

with more particular exactness, six *dwipas* are added; *Placsha*, *Sálmali*, *Crauncha*, *Sáca*, *Pushcara*, and a second *Cusha*, called *Cusha dwípa without*, in opposition to the former, which is said to be *within*; a distinction used by the *Bráhmens*, and countenanced in the *Puránas*, though not positively expressed in them: the six new *dwipas* are supposed to be contained within those before mentioned; and the *Puránas* differ widely in their accounts of them, while the geography of the former division is uniform.

Six of the ancient divisions are by some called *upadwipas*, because they are joined to the large *dwípa*, named *Jambu*; and their names are usually omitted in the new enumeration. Thus *Cásha-dwíp within* is included in *Jambu-dwíp*, and comprises three out of seven *c'handas*, or sections of *Bhárataversha*. Another geographical arrangement is alluded to by the poet CALIDA'S, who says, that "RAGHU erected
"pillars of conquest in each of the eighteen *dwipas*," meaning, say the *Pandits*, seven principal, and eleven subordinate, isles or peninsulas: *upa*, the same word originally with *hypo* and *sub*, always implies *inferiority*; as *upavéda*, a work derived from the *Véda* itself; *upapátaca*, a crime in a lower degree; *upadherma*, an inferior duty; but great confusion has arisen from an improper use of the words *upadwípa* and *dwípa*.

Cusha-dwípa without is *Abyssinia* and *Ethiopia*; and the *Bráhmens* account plausibly enough for its name, by asserting, that the descendants of CUSHA, being obliged to leave their native country, from them called *Cusha-dwípa within*, migrated into *Sanc'ha-dwíp*, and gave to their new settlement the name of their ancestor; for, though it be commonly said, that the *dwípa* was denominated from the grass *Cus'ha*, of the genus named *Pea*, by LINNÆUS, yet it is acknowledged, that the grass itself derived both its appellation and sanctity from CUSHA, the progenitor of a great *Indian* family. Some say that it grew on the *valmíca*, or hill formed by *Termites* or white ants, round the body of CUSHA himself, or of CAUSHICA his son, who was performing his *tapasyá*, or act of austere devotion; but the story of the ant-hill is by others told of the first *Hindu* poet, thence named VALMÍCA.

The countries, which I am going to describe, lie in *Sanc'ha-dwíp*, according to the ancient division; but, according to the new, partly in *Cusha-dwíp without*, and partly in *Sanc'ha-dwíp proper*; and they are sometimes named *Cálitata*, or banks of the *Cáli*, because they are situated on both sides of that river, or the Nile of *Ethiopia*. By *Cálitata* we are to understand *Ethiopia*, *Nubia*, and *Egypt*: it is even to this day called by the *Bráhmens* the country of *Dévatás*; and the Greek Mythologist

logist asserted, that the Gods were born on the banks of the *Nile*. That celebrated and holy river takes its rise from the *Lake of the Gods*, thence named *Amara*, or *Déva*, *Saróverá*, in the region of 'SHARMA, or *Sbarma-si'bán*, between the mountains of *Ajágara* and *Sítánta*, which seem part of *Sóma-giri*, or the mountains of the Moon, the country round the lake being called *Chándri-si'bán*, or *Moonland*: thence the *Cáli* flows into the marshes of the *Padma-van*, and through the *Nishadha* mountains, into the land of *Barbara*, whence it passes through the mountains of *Hémacúta* in *Sanc'ha-dwíp proper*, there entering the forests of *Tapas*, or *Thebais*, it runs into *Cantaca-déśa* or *Mishra-si'ban*, and through the woods, emphatically named *Arańya* and *Atavi* into *Sanc'bádbhi*, or our *Mediterranean*. From the country of *Pushpaversha* it receives the *Nandá* or *Nile* of *Abyssinia*; the *Ast himati*, or smaller *Crishná*, which is the *Tacazzè* or little *Abay*; and the *Sanc'ha-nágá*, or *Mareb*. The principal tribes or nations who lived on its banks, were, besides the savage *Pulindas*; 1. The '*Sbármicas*, or '*Sbámicas*; 2. The *Shepherds*, called *Palli*; 3. The *Sanc'báyanas* or *Troglodytes*, named also *Sanc'báyani*; 4. The *Cut'ila-céśas*, or *Cut'lá-lacas*; 5. The '*Syáma-muc'has*; 6. The *Dánavas*; and, 7. The *Yavanas*: we find in the same region a country denominated *Stri-rájiya*, because it was governed by none but *Queens*.

The river *Cáli* took its name from the goddess MAHA'-CALI', supposed to have made her first appearance on its banks, in the character of *Rájarájéśwari*, called also *ISA'NI* and *ISI*; and, in the character of *SATI'*, she was transformed into the river itself: the word *Cála* signifies black, and, from the root *cal*, it means also *devouring*, whence it is applied to *Time*; and, from both senses in the feminine, to the Goddess in her *destructive* capacity; an interpretation adopted, as we shall see hereafter, in the *Puránas*. In her character of MAHA'-CALI' she has many other epithets, all implying different shades of *black* or *dark azure*; and, in the *Cálicápurán*, they are all ascribed to the river; they are *Cáli* or *Cála*, *Nílá*, *Aśitá*, *Shyámá*, or '*Shyámala*, *Mécbacà*, *Anjanábhá*, *Crishná*. The same river is also called *Nákushí*, from the celebrated warrior and conqueror, usually entitled *DE'VA-NAHUSHA*, and in the spoken dialects, *DEO-NAUSH*: he is the *DIONYSIUS*, I believe, of the ancient *Europeans*.

By the *Greeks*, *Romans*, and *Hebrews*, the *Nile* (which is clearly a *Sanskrit* word) was known also by the following names: *Melas*, *Melo*, *Ægyptos*, *Sikbor*, or *Sibor*, *Nous*, or *Nús*, *Aëtos*, *Siris*, *Oceanus*, *Triton*, *Potamos*. The word *Nous* * is ma-

* HOR. APOLLO πρὸς Νίλῳ ἀγαλάσις. B. I.

nifestly corrupted from *Nabush*, or *NAUSH*; *Aëtos* from king *I't* or *Ait*, an *avāntara*, or inferior incarnation, of *MAHA'DEVA*; *Ægyptos* from *'Agupta*, or *on all sides guarded*; and *Triton*, probably, from *Trituni*, as the *Ethiops*, having no such letter as *p*, and generally substituting *t* in its room, would have pronounced *Tripuni*, which is a common *Indian* corruption of *Trivēnī*.

The *Sanṣcrit* word *Trivēnī* properly means with *three plaited locks*; but it is always applied to the confluence of *three sacred rivers*, or to the *branching* of a river into *three streams*: *ÆTHICUS*, in his *Cosmography*, instead of saying, that the *Hydaspes* flows from a place named *Trēvenī*, uses the phrase *three hairs*, or *three locks of hair*, which is a literal version of the *Sanṣcrit*. Now the *Cālī* consists of *three sacred streams*; the *Nīlā* or *Nile* of *Ethiopia*, the *Nandā*, or *Nile* of *Abyssinia*, and the little *Chrīṣhnā* or *Aṣṭ'himatī*. The junction of the great *Chrīṣhnā* with the *Nandā* was held peculiarly sacred, as it appears from the following couplets in the *Aṭ'har-vavēda*, which are cited in the original as a proof of their authenticity:

Bhadra bhagavatī Chrīṣhnā grabanacshatra mālinī,
Samvėsanī sanyamanī, vis'vasya jagatō niśā;
Agnichaura nipāteshu serva graba nivāranē,
Dacshā bhagavatī dēvī Nandayā yatra sangatā:
Serva pāpa prasamanī bhadre pāramas'i mahī,
Sitā sitasamāyogāt param yā na nivertatē.

That is, word for word:

“*CRISHNA*’ the prosperous, the imperial, the giver of delight, the restrainer of
 “*evil*, decked, like the night of the whole world, with a chaplet of planets and stars;
 “the sovereign goddess transcendently beneficial in calamities from fire and robbers,
 “in checking the *bad influence* of all planets, where she is united with the *NANDA*:
 “she it is, who expiates all sin. O propitious river, thou art the mighty goddess,
 “who causes us to attain the end of mortal births, who, by the conjunction of black
 “with white waters, never ceases to produce the highest good.”

Potamos, or the river in *THEOPHRASTUS*, is commonly supposed to be only an emphatical appellative denoting superiority; but I cannot help thinking it derived from the *Sanṣcrit* word *Padma*, which I have heard pronounced *Padam*, and even *Patam*, in the vulgar dialects: it is the *Nymphæa* of *LINNÆUS*, and, most certainly, the *Lotos* of the *Nile*, on the pericarp of which a Frog is represented sitting
 in

in an *Egyptian* emblem engraved by MONTFAUCON*. That river and the marshes near it abound with that lovely and useful plant; and we shall see presently, that *Cālī* herself is believed to have made its beautiful flower her favourite place of residence, in the character of *Padmā-dēvi*, or the *Goddeſs in the Lotos*. Most of the great rivers on which the *Nymphæa* floats in abundance, have the epithet of *Padmavati* or *Padmemati*; and the very word *Potamos*, used as an appellative for a large river, may be thence derived; at least the common etymology of that word is far less probable.

We before observed, that the source of the *NĪLA'* is in the extensive region of *SHARMA*, near the mountains of *Sōma*, in the masculine, or *Dei Luni*; and that it issues from the lake of the Gods, in the country of *Chandrī*, in the feminine, or *Dee-Lunæ*: to the word *śaróvara*, or *considerable lake*, is prefixed in composition either *Amara*, *Sura*, or *Dēva*; and the compound *Dēva-śaróvara* is generally pronounced, in common speech, *Deo-saraur*. It lies between two ranges of hills; one to the east, called *Ajágara*, or *not wakeful*; and the other to the west, named *Sítánta*, or *end of cold*, which implies that it may have snow on its summit, but in a very small quantity.

Skarma-St'han, called also the mountainous region of *Ajágara*, is said in the *Brāhmānda-purān* to be 300 *Yojans*, or 1476.3 *British* miles, in length, and 100 in breadth, or 492.12 miles. The mountains were named *Ajágara*, or of those, *who watch not*, in opposition to the mountains of *Abyssinia*, which were inhabited by *Nisācharas*, or *night-rovers*; a numerous race of *Yacshas*, but not of the most excellent class, who used to sleep in the day-time and revel all night: Mr. BRUCE speaks of a *Kowas* or *watching dog*, who was worshipped in the hills of *Abyssinia*.

The mountains of *SōMA*, or the Moon, are so well known to geographers, that no farther description of them can be required; but it may be proper to remark, that *PTOLEMY* places them too far to the South, and *M. D'ANVILLE* too far to the North, as it will hereafter be shown: according to *Father LOBO*, the natives now call them *Toroa*. The *Ajágara* mountains, which run parallel to the eastern shores of *Africa*, have at present the name of *Lupata*, or the *backbone of the world*: those of *Sítánta* are the range which lies west of the Lake *Zambre*, or *Zaire*, words not improbably corrupted from *Amara* and *Sura*. This *Lake of the Gods* is believed to be a vast reservoir, which, through visible or hidden channels, supplies all the rivers of the country. The *Hindus*, for mythological purposes, are fond of supposing

* 2. BRYANT. *Anc. Mythol.* 334. pl. 6.

subterranean communications between lakes and rivers; and the *Greeks* had similar notions. Mr. BRUCE, from the report of the natives, has placed a reservoir of this kind at the source of the *White River* *, which (though the two epithets have opposite senses) appear to be the *Cáli* of the *Puráns*: it may have been called *white* from the *Cumuda*, which abounds in its waters; at least the mountains near it are thence named *Cumuddri*, and the *Cumuda* is a water-flower sacred to the Moon, which VAN RHEEDE has exhibited, and which seems to be either a *Menianthes*, or a *Hydrophyllum*, or a small white *Nymphæa*. The lake of the *Amará*, or Immortals, was not wholly unknown to the *Greeks* and *Romans*, but they could not exactly tell where it was situated; and we are not much better acquainted with its true † situation: it is called *Nilides* by JUBA; *Niliducus* and *Nusaptis*, in the *Peutingian* Table. It is the *Oriental Marsh* of PTOLEMY, and was not far from *Rapta*, now *Quiloa*; for that well-informed geographer mentions a certain DIOGENES, who went on a trading voyage to *India*, and on his return was overtaken near the Cape, now called *Gardefan*, by a violent storm from the N.N.E. which carried him to the vicinity of *Rapta*, where the natives assured him, that the *marshes* or *lakes*, whence the *Nile* issued, were at no considerable distance.

The old *Egyptians* themselves, like the present *Hindus* (who are apt, indeed, to place reservoirs for water, of different magnitudes, on the high grounds of most countries), had a notion of a receptacle, which supplied the *Nile* and other great *African* rivers; for the Secretary of MINERVA's temple informed HERODOTUS, that the holy river proceeded from deep lakes between the mountains of *Cropbi* and *Mopbi*; that part of its waters took their course toward the north, and the rest to the south through *Ethiopia*: but either the secretary himself was not perfectly master of the subject, or the historian misunderstood him; for HERODOTUS conceived, that those lakes were close to *Syene* ‡, and, as he had been there himself without seeing any thing of the kind, he looked upon the whole account as a fiction. It is not improbable, however, that the lakes were said by the secretary to be near the country of *Azania* or *Azan*, which was mistaken for *Syene*, in *Egypt* called *Ufwán* or *Afwán*.

From this idea of a general reservoir the ancients concluded, that the *Niger* also had its origin from the same lakes with the *Nile*; but JUBA acknowledged, that the channels run underground for the space of twenty days' march, or about 300 miles ||:

* III. Bruce, 719.

† 2 Herod. c. 28.

‡ Plin. l. 5. c. 9.

|| Plin. l. 5. c. 9.

in conformity to the relation of DIOGENES, the marshy lakes were said by JUBA to lie near the Ocean; but he asserted positively, that the Nile did not immediately rise from them; adding, that it flowed through subterraneous passages for the space of several days' journey, and on its reappearance, formed another marshy lake of still greater extent, in the land of the *Massæsyli*, who were perhaps the *Mahabâsyasilas* of the *Purâns*. The second lake corresponds in situation with the extensive marshes from which the *Nahru'labyad* of the *Arabs*, or the *White River*, has its source, according to Mr. BRUCE, who places the lake about the 3d or 4th degree of north latitude: it is named *Cowir* in the maps; and is noticed by the *Nubian* geographers.

The word *Nusaptis*, which is applied, as before mentioned, to the first lake, may be derived from *Nis'apati*, or the *Lord of Night*, a title of the God LUNUS: the whole country, indeed, with its mountains and most of its rivers, had appellations relating to the moon; and we find in it several smaller rivers, which we cannot now ascertain, with the names of *Rajanî*, or night, *Cubû*, or the day after the conjunction, *Anumatî*, or that after the opposition; *Racà*, or the full orb of the moon; and *Sinkvâlî*, or first visible crescent. The inhabitants of that region are by PRO-LEMY called *Mastitæ*; by JUBA, as we before observed, *Massæsyli*; and, in the Maps, *Massi* or *Massagueios*: in all those denominations the leading root *Massa*, whatever be its meaning, is clearly distinguishable; and, as there were people with a similar name in *Mauritania*, PLINY and his followers make JUBA alledge, that the lakes just mentioned were in that country; but it is hardly possible, that JUBA could have made such a mistake with respect to a country so near his own; nor can we refrain from observing, that PLINY was an indifferent geographer, and that his extracts and quotations are in general very inaccurate.

The second lake, or marsh, appears to be the *Padmavana* of the *Sanskrit* legends; and that word implies, that it abounded with the *Nymphæa*; but it was probably the *Padma*, distinguished by the epithet of *Côti-patra*, or with *ten millions of petals*, which I conceive to be the *Ensète* of Mr. BRUCE, who mentions it as growing there in the greatest abundance: it is true, that the *Ensète* has no botanical affinity with the *Nymphæa*, but the *Hindus* were superficial botanists, and gave the same appellation to plants of different classes, as the word *Lotos*, indeed, was applied by the *Greeks* to the common *Padma*, or water lily, and to the celebrated fruit of the *Lotophagi*, which had no relation to it. The usual number of petals on the *Nymphæa Lotos* is *fifteen*; but some have only *eight*: the character of the genus, indeed,

indeed, is to have *numerous petals*, and the *Sanscrit* epithet *Sabastra-patra*, or *thousand-petalled*, is applied in dictionaries to the common *Padma*; but nothing could have justified such an epithet as *Cóti-patra*. On some *Egyptian* monuments we find *ISIS* reclined among the leaves of a plant, supposed to be the *Cadali*, or *Mauza*, which has been changed into *Musa*, by LINNÆUS; but Mr. BRUCE has exploded that error, and shewn that the plant was no other than his *Ensète*: the *Indian* Goddess, indeed, fits, in the character of YACSHINI'-dévî, on the leaves of the *Mauza*; but in that form, which was an *avántara*, or lower incarnation, she never has the majesty or the title of PADMA'. It is expressly said in the *Purânas*, that, on the banks of the *Calí* river, PADMA' resides in the *Cóti-patra*, a flower unknown in *India*, and consequently ill described in the *Sanscrit* books: where PLINY mentions the *Lotos* of the *Nile*, he uses a phrase very applicable to the *Ensète*: "foliis densâ congerie stipatis;" and, though he adds a few particulars, not agreeing with Mr. BRUCE's full description of that plant, yet PLINY, being a careless writer and an inaccurate botanist, might have jumbled together the properties of two different flowers.

The before-named country of *Chandri-s'bán* was thus denominated from a fable in the *Purâns*: The God *Chandra*, or LUNUS, having lost his sex in *India*, became *Chandri*, or LUNA, who concealed herself in the mountains near the lakes, of which we have been treating: she was there visited by the Sun, and by him had a numerous progeny called *Pulindas*, from *pulina*, an *islot* or *sandbank*, who dwelt near the rivers that ran from those mountains, and acknowledged no ruling powers but the Sun and the Moon.

Sharma-St'bán, of which we cannot exactly distinguish the boundaries, but which included Ethiopia above Egypt, as it is generally called, with part of *Abyssinia* and *Azan*, received its name from SHARMA, of whom we shall presently speak: his descendants, being obliged to leave *Egypt*, retired to the mountains of *Ajágar*, and settled near the lake of the Gods. Many learned *Bráhmens* are of opinion, that by the Children of SHARMA we must understand that race of *Dévatás*, who were forced to emigrate from *Egypt* during the reigns of SANI and RA'HU, or SATURN and TYPHON: they are said to have been a quiet and blameless people, and to have subsisted by hunting wild elephants, of which they sold or bartered the teeth, and even lived on the flesh. They built the town of *Rúpavati*, or the *beautiful*; which the *Greeks* called *Rapta*, and thence gave the name of *Raptii* or *Rapsii* to its inhabitants: it is generally supposed, that only one town in that country was named *Rapta*; but STEPHANUS of *Byzantium* positively asserts, that there

there were two of the name * ; one, the capital of *Ethiopia*, and another a small town or village, consisting of huts inhabited by sea-faring men, near a harbour at the mouth of the river *Ruptus*. The former is the *Rúpavati* of the *Puránas*, in which it is declared to have stood near the *Calí*: we cannot perfectly ascertain its position ; but it was, I think, situated near the southern extremity of the divine Lake, now called *Zambre* or *Maravi* ; for *PTOLEMY* places the *Raptii* about the sources of the *Nile* ; that is, *thirteen or fourteen* degrees from the city, whence, as he supposes, that people was named. No further description can justly be expected of a country so little known ; but we may observe that the *Nubian* geographer mentions a mountain near the Lake of the Gods, called the Mount of the *Painted Temple* ; because, probably, it contained hieroglyphicks cut on stone and painted, such as are to be seen at this day in some parts of *Egypt* : he adds, that, on the bank of the *second* lake, was the statue of a certain *Masfa*, supposed to be his body itself petrified, as a punishment for his crimes.

I. It is related in the *Padma-puran*, that *SATYAVRATA*, whose miraculous preservation from a general deluge is told at length in the *Matsya*, had three sons, the eldest of whom was named *JYA'PETI*, or *Lord of the Earth* ; the others were *C'harma* and *Sharma*, which last words are, in the vulgar dialects, usually pronounced *C'ham* and *Sham* ; as we frequently hear *Kishn* for *CRISHNA*. The royal patriarch, for such is his character in the *Purans*, was particularly fond of *JYA'PETI*, to whom he gave all the regions to the north of *Himálaya*, or the *Snowy Mountains*, which extend from sea to sea, and of which *Caucasus* is a part : to *Sharma* he allotted the countries to the south of those mountains ; but he cursed *C'harma* ; because, when the old monarch was accidentally inebriated with a strong liquor made of fermented rice, *C'harma* laughed ; and it was in consequence of his father's imprecation, that he became a slave to the slaves of his brothers.

The Children of *SHARMA* travelled a long time, until they arrived at the bank of the *Nilá* or *Calí* ; and a *Brabmen* informs me (but the original passage from the *Purán* is not yet in my possession) that their journey began after the building of the *Padma-mandira*, which appears to be the tower of *Babel*, on the banks of the river *Cumudvati*, which can be no other than the *Euphrates*. On their arrival in *Egypt* they found the country peopled by evil beings and by a few impure tribes of men, who had no fixed habitation ; their leader, therefore, in order to propitiate the tu-

* *STEPH. Byzant*, on the word *Rapta*.

telary divinity of that region, sat on the bank of the *Nile*, performing acts of austere devotion, and praising PADMA'-*dévi*, or the Goddess residing on the Lotos. PADMA' at last appeared to him, and commanded him to erect a pyramid, in honour of her, on the very spot where he then stood; the associates began the work, and raised a pyramid of earth two *crós* long, one broad and one high, in which the Goddess of the Lotos resided; and from her it was called *Padmá-mandira* and *Padma-mat'ba*. By *mandira* is meant a *temple*, or *palace*, and by *mat'ba*, or *mer'ba*, a *college*, or *habitation of students*; for the Goddess herself instructed SHARMA and his family in the most useful arts, and taught them the *Yacsha-lipi*, or *writing of the Yacshas*, a race of superior beings, among whom CUVERA was the chief. It does not clearly appear on what occasion the *Sharmicas* left their first settlement, which had so auspicious a beginning; but it has before been intimated, that they probably retreated to *Ajágara*, in the reigns of SANI and RAHU, at which time, according to the *Puráns*, the *Dévatás*, among whom the *Sharmicas* are reckoned, were compelled to seek refuge in the mountains: a similar flight of the *Dévatás* is, however, said to have been caused by the invasion of DEVA-NAHUSH, or DIONYSIUS.

The *Padmá-mandir* seems to be the town of *Byblos*, in *Egypt*, now called *Babel*; or rather that of *Bábel*, from which original name the *Greeks* made *Byblos*: it stood on the canal, which led from the *Balbitine* branch of the *Nile* to the *Phatmetic*; a canal, which is pretty well delineated in the *Peutingerian* table; and it appears, that the most southern *Iseum* of that table is the same with the *Byblos* of the *Greeks*. Since this mound or pyramid was raised but a short time after that on the *Cumudvati*, and by a part of the same builders, and since both have the same name in *Sanskrit*, whence it should seem, that both were inscribed to the same divinity, we can hardly fail to conclude, that the *Padmá-mandiras* were the two *Babels*; the first on the *Euphrates*, the second on the *Nile*. The old place of worship at *Byblos* was afterwards much neglected, being scarce mentioned by ancient authors: STEPHANUS of *Byzantium* says it was very strong; and it was there, according to THUCYDIDES, and to the *Persicks* of CTESIAS, quoted by PHOTIUS, that INARUS, king of *Lybia*, with his *Athenian* auxiliaries and the *Egyptians*, who were attached to him, sustained a siege of a year and a half against the whole *Persian* army, under MEGABYZUS: but, as it stood in low marshy ground, it probably owed its chief strength to the vast mound of earth mentioned in the *Puráns*, the dimensions of which are, however (as it is usual in poetical descriptions), much exaggerated. One of three grand branches of the *Nile*, in the vicinity of *Padmá-mat'b*, is called *Pathmeti* by PRO-

LEMY, and *Phatmi* by DIODORUS the *Sicilian*: both seem derived from the *Sanscrit* corrupted; for *Padma* is in many *Indian* dialects pronounced *Padm*, or *Podm*, and in some *Patma*. To the same root may be referred the appellation of the nome *Phthembuthi*, or *Phthemmuthi*, as it is also written; for the *Padmá-mat'h* was in the nome *Profopitis*, which once made a part, as it evidently appears, of the nome *Phthembuthi*, though it was afterwards considered as a separate district, in consequence of a new division: *Profopitis*, most certainly, is derived from a *Greek* word, and alludes to the summit of the *Delta*, seen on a passage down the *Nile* from the city of *Memphis*; but *Potamitis*, which was applied to *Egypt* itself, can hardly mean any more, than that the country lies on both sides of a large river, which would not be a sufficient discrimination to justify that common etymology; and we have already hazarded a conjecture that *Potamos*, as a proper name of the *Nile*, relates to the holy and beautiful *Padma*.

Of the *Yacsha* letters before mentioned, I should wish to give a particular account; but the subject is extremely obscure; CRINITUS asserts, that the *Egyptian* letters were invented by *ISIS*; and *ISIS*, on the *Lotos*, was no other, most certainly, than *PADMA-DEVÍ*, whom the *Puránas* mention as the instructress of the *Sbarmicas*, in the *Yacsha* mode of writing. According to the *Bráhmens*, there are written characters of three principal sorts, the *Dévanagarí*, the *Paisáchí*, and the *Yácsbí*; but they are only variations of the same original elements: the *Dévanagarí* characters are used in the northern, the *Paisáchí*, in the southern parts, of *India*, and the *Yácsbí*, it is said, in *Butan* or in *Thibet*. The *Pandits* consider the *Dévanagarí* as the most ancient of the three; but the beauty and exquisite perfection of them renders this very doubtful; especially as *ATRI*, whom they suppose to have received them from the Gods, lived a long time, as they say, in the countries bordering on the *Cásh*, before he repaired to the *Dévaníca* mountains near *Cábul*, and there built the town of *Dévanagar*, from which his system of letters had the name of *Dévanagarí*. As to the *Paisáchá* characters, they are said to have been invented by the *Pális*, or shepherds, who carried them into *Ethiopia*: the *Yacsha* writing I had once imagined to be a system of hieroglyphicks; but had no authority from the *Puránas* to support that opinion, and I dropped it on better information; especially as the *Bráhmens* appear to have no idea of hieroglyphicks, at least according to our conception of them.

The *Sbarmicas*, we have observed, rank among the *Dévatás* or demi-gods; and they seem to have a place among the *Yacschas* of the *Puráns*, whom we find in the northern

northern mountains of *India*, as well as in *Ethiopia*: the country in which they finally settled, and which bore the name of their ancestors, was in *Sanc'ha dwíp*, and seems to comprise all that subdivision of it, which, in the *Bhágavat*, and other books, is called *Cusba-dwíp without*.

Several other tribes, from *India* or *Persia*, settled afterwards in the land of SHARMA: the first and most powerful of them were the *Pális*, or *Shepherds*, of whom the *Puránas* give the following account:

II. IRS'HU, surnamed *Pingácsa*, the son of UGRA, lived in *India* to the south-west of *Cáshi*, near the *Naravindhya* river, which flowed, as its name implies, from the *Vindhya* mountains: the place of his residence to the south of those hills was named *Palli*, a word now signifying a large town and its district, or *Páli*, which may be derived from *Pála*, a herdsman or shepherd. He was a prince mighty and warlike, though very religious; but his brother TA'RA'C'HYA, who reigned over the *Vindhyan* mountaineers, was impious and malignant; and the whole country was infested by his people, whom he supported in all their enormities: the good king always protected the pilgrims to *Cáshi* or *Varánes* in their passage over the hills, and supplied them with necessaries for their journey; which gave so great offence to his brother, that he waged war against IRS'HU, overpowered him, and obliged him to leave his kingdom; but MAHA'DE'VA, proceeds the legend, assisted the fugitive prince and the faithful *Pális*, who accompanied him; conducting them to the banks of the *Cáli*, in *Sanc'ha-dwíp*, where they found the *Shármicas*, and settled among them. In that country they built the temple and town *Puny-avatí*, or *Punya-nagarí*; words implying *holiness* and *purity*, which it imparts, say the *Hindus*, to zealous pilgrims: it is believed at this day to stand near the *Cáli*, on the low hills of *Mandara*, which are said, in the *Puránas*, to consist of *red earth*; and on those hills the *Pallis*, under their virtuous leader, are supposed to live, like the *Gandharvas*, on the summit of *Himálaya*, in the lawful enjoyment of pleasures; rich, innocent, and happy, though intermixed with some *Mléch'bas*, or people who *speak a barbarous dialect*, and with some of a fair complexion. The low hills of *Mandara* include the tract called *Meroë* or *Merhoë*, by the *Greeks*; in the centre of which is a place named *Mandara* in the *JESUITS' Map*, and *Mandera* by Mr. BRUCE, who says, that of old it was the residence of the shepherds, or *Palli*, kings: in that part of the country the hills consist of *red earth*; and their name *Mandara* is a derivative from *manda*, which, among other senses, means *sharp-pointed*, from *man*, or *water*, and *drí*, whence *dara* to *pierce*; so that *Mandara-parvata* signifies a mountain
dividing

dividing the waters and forcing them to run different ways; an etymology confirmed by Mr. BRUCE in his description of *Meroë*, where he accounts for its being called an island. The compound *Punya-nagarī*, or *City of Virtue*, seems to imply both a feat of government and a principal temple with a college of priests: it was, therefore, the celebrated city of *Meroë*; a word which may be derived from MERHA (*vidyārt'-binām grīham*, the *mansion of students*, as it is explained in the dictionaries) or from MRARA, of whom we shall presently speak.

To the king of the *Pallis*, named also *Palli* from those whom he governed, MAHA'DE'VA gave the title of NAIRRĪTA, having appointed him to guard the *nairrīti*, or south-west; and, though he was a *Pisācha* by birth, or naturally bloody-minded, yet he was rewarded for his good disposition, and is worshipped in *India* to this day, among the eight *Dic-pālas*, or guardians of as many quarters, who constantly watch, on their elephants, for their security of *Cāsi*, and other holy places in *Jambudwīpa*: but the abode of his descendants is declared in the *Purānas*, to be still on the banks of the *Cālī* or *Nilā*. One of his descendants was LUBDHACA, of whom an account will be given in a subsequent section; and from LUBDHACA descended the unfortunate LI'NA'SU, not the bard HERIDATTA, who had also that name, and who will be mentioned hereafter more particularly, but a prince whose tragical adventures are told in the *Rājanīti*, and whose death was lamented annually by the people of *Egypt*: all his misfortunes arose from the incontinence of his wife YO'GA, BHRAST'A' or YO'GACASHTA; and his son MAHA'SURA, having by mistake committed incest with her, put himself to death, when he discovered his crime, leaving issue by his lawful wife. May we not reasonably conjecture, that LUBDHACA was the LABDACUS, LI'NA'SU, the LAIUS, and YO'GACASHTA the JOCASTA of the *Greeks*? the word *Yadupa*, from which CEDIPUS may be derived, signifies King of the *Yadu* family, and might have been a title of the unhappy MAHA'SURA.

This account of the *Pallis* has been extracted from two of the eighteen *Purānas*, entitled SCANDA, or the God of War, and BRAHMA'NDA, or the Mundane Egg. We must not omit, that they are said to have carried from *India* not only the *At'-harvā-vēda*, which they had a right to possess, but even the *three* others, which they acquired clandestinely, so that the *four* books of ancient *Indian* scripture once existed in *Egypt*; and it is remarkable, that the books of *Egyptian* science were exactly *four*, called the books of *Harmonia* or HERMES, which are supposed to have contained subjects of the highest antiquity *. NONNUS mentions the first of them

* See 2 Bryant, 150.

as believed to be coeval with the world; and the *Bráhmens* assert, that their three first *Védas* existed before the creation.

The *Pallis*, remaining in *India*, have different names; those who dwell to the south and south-west of *Benáres*, are, in the vulgar dialects, called *Pális* and *Bhils*; in the mountains to the north-east of that city, they are in *Sanscrit* named *Cirátas*; and, toward the *Indus*, as I am informed, a tribe of them has the appellation of *Harita*: they are now considered as outcasts, yet are acknowledged to have possessed a dominion in ancient times from the *Indus* to the eastern limits of *Bengal*, and even as far as *Siam*. Their ancestors are described as a most ingenious people, virtuous, brave, and religious; attached particularly to the worship of MAHA'DE'VA', under the symbol of the *Linga* or *Phallus*; fond of commerce, art, science; and using the *Paisáchi* letters, which they invented. They were supplanted by the *Rájaputras*; and their country, before named *Pálist'hán*, was afterwards called *Rájaputaná* in the vulgar dialect of their conquerors. The history of the *Pallis* cannot fail to be interesting, especially as it will be found much connected with that of *Europe*; and I hope soon to be supplied with materials for a fuller account of them: even their miserable remains in *India* must excite compassion, when we consider how great they once were, and from what height they fell through the intolerant zeal and superstition of their neighbours. Their features are peculiar; and their language different, but perhaps not radically, from that of other *Hindus*: their villages are still called *Palli*; many places, named *Palita*, or, more commonly, *Bhilata*, were denominated from them; and in general *Palli* means a village or town of *shepherds* or *herdsmen*. The city of *IRSHU*, to the south of the *Vindhya* mountains, was emphatically styled *Palli*; and, to imply its distinguished eminence, *Sri-palli*: it appears to have been situated on or near the spot, where *Bopál* now stands, and to be the *Sari-palla* of *PTOLEMY*, which was called *Palibothræ* by the *Greeks*, and, more correctly in the *Peutingerian* table, *Palipotra*; for the whole tribe are named *Paliputras* in the sacred books of the *Hindus*, and were indubitably the *Palibothri* of the ancients, who, according to *PLINY*, governed the whole country from the *Indus* to the mouth of the *Ganges*; but the *Greeks* have confounded them and their capital city with the *Baliputras*, whose chief town, denominated from them, had also the name of *Rájagriha*, since changed into *Rájamahall*: as it was in the *mandala*, or circle, of the *Baliputras*, it is improperly called by *PTOLEMY*, who had heard that expression from travellers, *Palibothræ* of the *Mandalas*.

We have said, that *IRSHU* had the surname of *Pingácsba*, or *yellow-eyed*, but, in some

Some dictionaries, he is named *Pingáśa*, or *yellow as fine gold*; and in the track of his emigration from *India*, we meet with indications of that epithet: the *Turkish* geographers consider the sea-coast of *Yemen*, says Prince KANTEMIR, as part of *India*, calling its inhabitants *yellow Indians*; the province of *Ghilán*, says TEXEIRA, has also the appellation of *Hindu'l Asfar*, or *Yellow India*; and the *Caspian* itself is by the *Turks* called the *Yellow Sea* *. This appears to be the origin of the *Panchæan* tribes, in *Arabia*, *Egypt*, and *Ethiopia*, whose native country was called *Panchæa*; and the islands near it, *Panchæan*: though DIODORUS of *Sicily*, attempting to give a description from EUHEMERUS of *Panchæa* or *Pingáśa*, has confined it to an inconsiderable island near *Dwáracà*, yet it was really *India* itself, as his description sufficiently shows; and the place, which he names *Oceanida*, is no other than old *Ságar* at the mouth of the *Ganges*; the northern mountain, which he speaks of, is *Méru*; and the three towns near it are described in the *Puráns* with almost the same appellations.

ORUS, the shepherd, mentioned in ancient accounts of *Egypt*, but of whom few particulars are left on record, was, most probably, IRSHU the *Palli*; whose descendants, the *Pingácsas*, appear to have been the *Phenician* shepherds, who once established a government on the banks of the *Nile*: the *Phenicians* first made their appearance on the shores of the *Erythrean*, or *Red Sea*, by which we must understand the whole *Indian* ocean between *Africk* and the *Malay* coasts; and the *Puráns* thus represent it, when they describe the waters of the *Arunódadhi* as *reddened* by the reflection of solar beams from the southern side of mount *Suméru*, which abounds with gems of that colour: something of this kind is hinted by PLINY †. It is asserted by some (and from several circumstances it appears most probable), that the first settlements of the *Phenicians* were on the *Persian* gulph, which is part of the *Erythrean* sea: JUSTIN says, that, *having been obliged to leave their native country* (which seems from the context to have been very far eastward), *they settled near the Assyrian lake*, which is the *Persian* gulph; and we find an extensive district, named *Palestine*, to the east of the *Euphrates* and *Tigris*. The word *Palestine* seems derived from *Pallist'bán*, the seat of the *Pallis*, or shepherds ‡; the *Samaritans*, who before lived in that country, seem to have been a remnant of the *Pallis*, who kept themselves distinct from their neighbours, and probably removed for that reason to the *Palestine* on the shore of the *Mediterranean*; but after their

* Müller, p. 106.

† Lib. 6. cap. 23.

‡ Lib. 6. cap. 70.

arrival in that country, they wished to ingratiate themselves with the *Jews* and *Phenicians*, and, for that purpose, claimed affinity with them; alleging, sometimes, that they were descended from JACOB, and at other times, that they sprang from PINKHAS; a word pronounced also PHINEAS, and supposed (but, I think, less probably), to mean the son of AARON. Certainly, the *Jews* looked upon the *Samaritans* as a tribe of *Philistines*; for mount *Garizim* was called *Palitan* and *Peltan*. TREMELLIUS, in the wisdom of the son of SIRACH, writes *Palisabthæa*, but in the *Greek* we find the *Philistines*, who reside on the mount of Samaria*; but let us return to *Palestine* in *Assyria*.

Whether the posterity of *Pingácsba*, or the yellow *Hindus*, divided themselves into two bodies, one of which passed directly into *Phenice*, and the other went, along the *Arabian* shores, to *Abyssinia*, or whether the whole nation first entered the southern parts of *Arabia*, then crossed over to *Africk*, and settled in the countries adjacent to the *Nile*, I cannot determine; but we have strong reasons to believe, that some, or all of them, remained a considerable time on the coast of *Yemen*: the *Panchean* tribes in that country were considered as *Indians*: many names of places in it, which ancient geographers mention, are clearly *Sanscrit*, and most of those names are found at present in *India*. The famed *Rbadamanthus*, to whom HOMER gives the epithet *yellow*, and his brother MINOS, were, it seems, of *Phenician* extraction: they are said to have reigned in *Arabia*, and were, probably, *Pallis* descended from PINGA'CSHA, who, as we have observed, were named also *Cirátas*, whence the western island in which MINOS, or his progeny, settled, might have derived its appellations of *Curetis*† and *Crete*. In scripture we find the *Peleti* and *Kerethi* named as having settled in *Palestine*; but the second name was pronounced *Krethi* by the *Greek* interpreters, as it is by several modern commentators: hence we meet with *Krita*, a district of *Palestine*, and at *Gaza* with a JUPITER *Cretæus*, who seems to be the *Critéswara* of the *Hindus*. In the spoken *Indian* dialects, *Palita* is used for *Palli*, a herdsman; and the *Egyptians* had the same word; for their priests told HERODOTUS, that their country had once been invaded by PHILITIUS, the shepherd, who used to drive his cattle along the *Nile*, and afterwards built the pyramids‡. The *Phyllitæ* of PTOLEMY, who are called *Bulloits* by Captain R. COVERT, had

* Chap. 50. v. 26.

† PLIN. lib. 4. cap. 12. *Curetis* was named, according to ANAXIMANDER, from the *Curetes*, under their king, PHILISTIDES.

‡ HEROD. B. 2. 143.

their name from *Bhilata*, which in *India* means a place inhabited by *Pallis* or *Bhils*: the ancient shepherds made so conspicuous a figure in *Egypt*, that it is needless to expatiate on their history; and for an account of the shepherds in or near *Abyssinia*, I refer to the Travels of Mr. BRUCE. Let us return to *Meroë*.

The writers of the *Purānas*, and of other books esteemed sacred by the *Hindus* were far from wishing to point out the origin of mere cities, how distinguished soever in civil transactions: their object was to account for the foundation of temples and places of pilgrimage; but it often happened, that several places of worship were in different periods erected at a small distance from each other; and, as the number of inhabitants increased round each temple, an immense town was at length formed out of many detached parts; though we are never told in the *Purānas*, whether those consecrated edifices were contiguous or far asunder. This happened to *Memphis*, as we shall presently show; and it seems to have been the case with *Punyavati*, and with *Merba* or *Mrīra*: those words are written *Met'ba* and *Mrīdā*, but there is something so peculiar in the true sound of the *Nāgarī* letters, *t'a*, *t'ba*, *'da*, *'d'ba*, that they are generally pronounced, especially when they are placed between two vowels, like a palatial *ra*; the vowel *rī* has likewise a great peculiarity, and, as we before observed on the word *Kiṣṇa* for *Crīṣṇa*, is frequently changed: now the whole *Troglodytica* was named *Midoë* or *Mirboe*; and he who shall attentively consider the passage in PLINY, where the towns of *Midoë* and *Asal* are mentioned, will perceive, that they can be no other than *Meroë* and *Æsar*. This interchange of *'da* and *ra* so exactly resembles the *Sanscrit*, that the name of *Meroë* seems more probably derived from *Mrīda*, than from *Metba*, or a college of priests; especially as the *Pallis* were almost exclusively attached to the worship of MRĪRA, or MAHA-DE'VA: a place in *Pegu*, called *Mrīra* from the same deity, has in PTOLEMY the name of *Mareura*, and is now pronounced *Mero* by the natives.

According to the *Purāns*, the residence of King I'T (who formerly ruled over *Egypt* and *Ethiopia*), was on the banks of the *Cālī* river, and had the name of *Mrīra* or *Mrīra-s'bán*, because its principal temple was dedicated to MRĪRA and his consort MRINA'NI, or PA'RVATI: now, when we read in STEPHANUS of *Byzantium* that the fort of *Merusum* near *Syracuse* was believed by some to have taken its name from *Meroë* in *Ethiopia*, we must understand, that it was named from a place of worship sacred to MRĪRA, the chief *Ethiopian* divinity; and the same author informs us, that *Meroessa Diana*, or MRIRE'SWARI' DE'VI, who is represented with a crescent on her forehead, was adored at *Morusum* in *Sicily*. We may conclude, that

that her husband MRĪRE'SWARA, was the God of *Meroë*, called a *barbarous deity* by the *Greeks*, who, being themselves unable to articulate his name, insisted that it was concealed by his priests. It has been imagined, that CAMBYSES gave the name of his sister and wife to *Meroë*; but it is very dubious, in my opinion, whether he penetrated so far as that city: in all events he could have made but a short stay in the district, where, as he was abhorred by the *Egyptians* and *Ethiops*, it is improbable, that a name imposed by him, could have been current among them; and whatever might have been his first intention as to the name of his wife, yet, when he had killed her, and undergone a series of dreadful misfortunes in those regions, it is most probable, that he gave himself no further trouble about her or the country.

In the book entitled *Saiva-ratnācara*, we have the following story of King IṬ, who is supposed to have been MRĪRA himself in a human shape, and to have died at *Meroë*, where he long reigned.

On the banks of the *Nilā*, there had been long contests between the *Dēvatās* and the *Daityas*: but the latter tribe having prevailed, their king and leader SANC'HA'SURA, who resided in the ocean, made frequent incursions into the country, advancing usually in the night and retiring before day to his submarine palace: thus he destroyed or made captive many excellent princes, whose territories and people were between two fires; for, while SANC'HA'SURA was ravaging one side of the continent, CRACACHA, king of *Crauncha-dwīp*, used to desolate the other; both armies consisting of savages and cannibals, who when they met fought together with brutal ferocity, and thus changed the most fertile of regions into a barren desert. In this distress, the few natives who survived raised their hands and hearts to BHAGAVAN, and exclaimed: 'Let him that can deliver us from these disasters be our King,' using the word IṬ, which re-echoed through the whole country. At that instant arose a violent storm, and the waters of the *Cālī* were strangely agitated, when there appeared from the waves of the river a man, afterwards called IṬ, at the head of a numerous army, saying *abbayam*, or *there is no fear*; and, on his appearance, the *Daityas* descended into *Pātāla*, the demon SANC'HA'SURA plunged into the ocean, and the savage legions preserved themselves by precipitate flight. The King IṬ, a subordinate incarnation of MRĪRA, re-established peace and prosperity through all *Sanc'hadwīpa*, through *Barbara-dēśa*, *Misra-ś'kân*, and *Arva-ś'kân*, or *Arabia*; the tribes of *Cut'ila-cēśas* and *Hāśyasīlas* returned to their former habitation, and justice prevailed through the whole extent of his dominions: the place, near which he

He sprang from the middle of the *Nilá*, is named, *Ita*, or *I't-s't'hán*, and the capital of his empire, *Mríra* or *Mrírá-s't'hán*. His descendants are called *Ait*, in the derivative form, and their country, *Aitéya*: the king himself is generally denominated *AIT*, and was thus erroneously named by my *Pandit* and his friends, till after a long search they found the passage, in which his adventure is recorded. The *Greeks*, in whose language *aëtos* means an Eagle, were very ready, as usual, to find an etymology for *Ait*: they admit, however, that the *Nile* was first called *Aëtos*, after a dreadful swelling of the river, which greatly alarmed the *Ethiopians**; and this is conformable to what we read in the *Saiva-ratnácara*. At the time of that prodigious intumescence in the river, it is said, that *PROMETHEUS* was king of *Egypt*; but *PROMETHEUS* appears to be no other than *PRAMAT'HE'SA*, a title of *MRÍRA*, signifying Lord of the *Pramat'has*, who are supposed to be the *five senses*; and, in that character, he is believed to have formed a race of men. *STEPHANUS* of *Byzantium* and *EUSTATHIUS*† assert, that *AETUS* was an *Indian* or *Hindu*; but, as nothing like this can be collected from the *Puránas*, they confounded, I imagine, *IT* or *AIT* with *YADU*, of which I shall instantly speak. The chief station of *I't*, or *Aitam*, which could not have been very distant from *Mríra-s't'hán*, I take to be the celebrated place of worship, mentioned by *STRABO*‡, and by *DIODORUS* called *Avatum*||, which was near *Meroë*: it was the same, I believe, with the *Tathis* of *PTOLEMY* and *Tatu* of *PLINY*, situated in an island, which according to *Mr. BRUCE* is at present known by the name of *Kurgos*, and which was so near *Meroë* as to form a kind of harbour for it.

The origin of the *Yátus* is thus related. *UGRASE'NA*, or *UGRA*, was father of *DEVACI*, who was *CRISHNA*'s mother; his son *CANSA*, having imprisoned him, and usurped his throne, became a merciless tyrant, and showed a particular animosity against his kinsmen the *Yádavas*, or descendants of *YADU*, to whom, when any of them approached him, he used to say *yátu*, or *be gone*, so repeatedly, that they acquired the nickname of *Yátu*, instead of the respectable patronymick, by which they had been distinguished. *CANSA* made several attempts to destroy the Children of *DEVACI*; but *CRISHNA*, having been preserved from his machinations, lived to kill the tyrant and restore *UGRASE'NA*, who became a sovereign of the world. During the infancy, however, of *CRISHNA*, the persecuted *Yádavas* emigrated from *India*, and retired to the mountains of the exterior *Cus'ba-dwíp*, or *Abyssinia*: their

* *Diod. Sic. B. 1.*

† *Strabo. B. 17. p. 823.*

‡ On *Dionys. Πηγιν*.

|| *Diod. Sic. B. 4. c. 1.*

leader *Yātu* was properly entitled YA'DAVE'NDRA, or Prince of *Yádavas*; whence those mountains acquired the same appellation. They are now called *Ourémidré*, or *Ardwemidré*, which means, we are told, the Land of *Arwe*, the first king of that country*; but, having heard the true *Sanſcrit* name pronounced, in common ſpeech, *Yarevindra*, I cannot but ſuſpect a farther corruption of it in the name of the *Abyſſinian* mountains. Thoſe *Indian* emigrants are deſcribed in the *Puráns* as a blameleſs, pious, and even ſacred, race; which is exactly the character given by the ancients to the genuine *Ethiopians*, who are ſaid by STEPHANUS of *Byzantium*, by EUSEBIUS, by PHILOSTRATUS, by EUSTATHIUS, and others, to have come originally from *India* under the guidance of AETUS, or *Yātu*; but they confound him with king AIT, who never was there: YA'DABE'NDRA (for ſo his title is generally pronounced), ſeems to be the wiſe and learned *Indian*, mentioned in the *Paschal Chronicle* by the name of ANDUBARIUS†. The king or chief of the *Yátus* is correſtly named YA'TUPA, or in the weſtern pronunciation, JA'TUPA; and their country would, in a derivative form, be called *Yátupéya*: now the writers of the *Univerſal Hiſtory* aſſert, that the native *Ethiopians* give their country, even at this day, the names of *Itiopia* and *Zaitiopia*. There can be little or no doubt, that YA'TUPA was the king ÆTHIOPS of the *Greek* Mythologiſts, who call him the ſon of VULCAN; but, according to the *Puráns*, that deſcent could not be aſcribed to YA'TU, though it might, perhaps, to King IT; for it will be ſhown, in a ſubſequent part of this eſſay, that the VULCAN of *Egypt* was alſo conſidered by the *Hindus* as an *avántara*, or ſubordinate incarnation of MAHA'DE'VA.

Not only the land of *Egypt* and the countries bordering on the *Nile*, but even *Africa* itſelf, had formerly the appellation of *Aëria*; from the numerous ſettlements, I ſuppoſe, of the *Abirs*, or ſhepherds, as they are called in the ſpoken *Indian* dialects: in *Sanſcrit* the true word is *Abbír*, and hence, I conceive, their principal ſtation in the land of *Góſhen*, on the borders of *Egypt*, was named *Abaris* and *Avaris*; for *Gboſhen'à* itſelf, or *Ghóſháyana*, means the abode of ſhepherds or herdſmen; and *Ghóſha*, though it alſo ſignify a *gópál*, or Cowherd, is explained in *Sanſcrit* dictionaries by the phraſe *Abbírapallí*, a town or village of *Abbíras* or *Pallis*.

The mountains of *Abyſſinia* have in *Sanſcrit* the name of *Niſhadha*; and from them flowed the *Nandà* (which runs through the land of *Puſhpaverſham* about the lake *Dembea*), the Little *Críſhná*, or *Tacazzè*, and the *Sanc'hanágá*, or *Mareb*; of

* Univ. Hiſt. vol. 16. p. 222.

† Chron. Paſch. p. 36.

which three rivers we shall hereafter speak more particularly. Since the *Hindus* place another *Méru* in the Southern Hemisphere, we must not be surprized to find the *Nilá* described by them as rushing over three ranges of mountains, which have the same names with three similar ranges, over which the *Gangá*, in their opinion, forces its way, before it enters the plains of *India*: those mountains are the *Himálaya*, or Seat of Snow, the *Nishadha*, and the *Hémacúta*, or *with a golden peak*. The *Hindus* believe, that a range of *African* hills is covered with snow; the old *Egyptians*, *Greeks*, and *Romans*, believed the same thing; and modern travellers assert, that snow falls here and there in some parts of *Africa*; but the southern *Himálaya* is more generally called *Sitánta*, which implies the *end*, or limit, of cold. On the northern *Himálaya* is the celebrated lake *Mánasa-saras*, or *Mánasaróvara*, near *Sumeru*, the abode of Gods; who are represented sometimes as reclining in their bowers, and sometimes as making aerial excursions in their *Vimáns*, or *heavenly cars*: thus on, or within, the southern *Himálaya*, we find the lake of the Gods, which corresponds with that in the north; with this difference, that the existence of the southern lake cannot be doubted, while that of the northern may well be called in question (unless there be such a lake in the unknown region between *Tibet* and the high plains of *Bokhára*); for what the *Sannyásis* call *Mánasaróvar*, is in truth the *Vindhyasaras* of the *Puráns*. Beyond the southern lake of the Gods is another *Méru*, the seat also of divinities, and the place of their airy jaunts; for it is declared in the *Puráns*, as the *Bráhmens* inform us, that, within the mountains, towards the source of the *Nilá*, there are delightful groves inhabited by deities, who divert themselves with journeying in their cars from hill to hill: the *Greeks* gave to that southern *Méru* the appellation of $\Theta\epsilon\acute{\omega}\nu\ \delta\chi\eta\mu\alpha$, in allusion to the *Vimáns*, or *celestial cars*; but they meant a range of hills, according to *PLINY* and *AGATHEMERUS* *, not a single insulated mountain. *PLINY*, who places that mountainous tract in the south of *Ethiopia*, makes it project a great way into the southern ocean: its western limit is mentioned by *PTOLEMY*; and the *Nubian* geographer speaks of all the three ranges. By the *Chariot of the Gods* we are to understand the lofty grounds in the centre of the *African* peninsula, from which a great many rivers, and innumerable rivulets, flow in all directions: fires were constantly seen at night on the summit of those highlands; and that appearance, which has nothing very strange in it, has been fully accounted for by modern travellers.

* Plin. l. 6. c. 30. l. 5. c. 1. l. 2. c. 106. Agathem. B. 2. ch. 9.

We come now to the *Háfyasílas* or *Habaſbis*, who are mentioned, I am told, in the *Puránas*, though but ſeldom; and their name is believed to have the following etymology; C'HARMA, having *laughed* at his father SATYAVRATA, who had by accident intoxicated himſelf with a fermented liquor, was nicknamed *Háfyasíla*, or the *Laugher*; and his deſcendants were called from him *Háfyasílas* in *Sanſcrit*, and, in the ſpoken dialects, *Háfyas*, *Hanſelis*, and even *Habaſbis*; for the *Arabick* word is ſuppoſed by the *Hindus* to be a corruption of *Háfyas*. By thoſe deſcendants of C'HARMA they underſtand the *African* negroes, whom they ſuppoſe to have been the firſt inhabitants of *Abyſſinia*; and they place *Abyſſinia* partly in the *dwípa* of *Cuſha*, partly in that of *Sanc'ha Proper*. Dr. Pocock was told at the Cataracts, that beyond them, or in the exterior *Cuſha-dwíp*, there were *ſeven* mountains; and the *Bráhmens* particularly affect that number: thus they divided the old continent into ſeven large iſlands, or peninſulas, and in each iſland we find ſeven diſtricts with as many rivers and mountains. The following is the *Pauránic* diviſion of *Cuſha-dwíp* called *exterior*, with reſpect to that of *Jambu*:

DISTRICTS.	MOUNTAINS.	RIVERS.
'Apyáyana.	Puſhpaverſha.	Nandá.
Páribhadra.	Cumudádri.	Rajaní.
Dévaverſha.	Cundádri.	Cubú.
Ramanaca.	Vámadéva.	Saraſwatí.
Sumanaſa.	'Sataſ'ringa.	Sintváli.
Suróchana.	Saraſa.	Anumati.
Avijnyáta.	Sabaſraſruti.	Rácd.

It ſeems unneceſſary to ſet down the etymology of all theſe names; but it may not be improper to add, that *'Sataſ'ringa* means *with a hundred peaks*, and *Sabaſraſruti*, with a *thouſand ſtreams*.

Between the exterior *Cuſha-dwíp* and *Sanc'ha Proper* lies, according to the *Puráns*, on the banks of the *Nílá*, the country of *Barbara*; which includes, therefore, all the land between *Syene* and the confluence of the *Nile* with the *Tacazzè*, which is generally called *Barbara* and *Barbar* to this day; but, in a larger ſenſe, it is underſtood by the *Pauránics* to comprize all the burning ſands of *Africa*. *Barbara-déſa*, which anſwers to the *loca arida et ardentia*, mentioned by *PLINY* as adjacent to the *Nile*, was a fertile and charming country, before it was *burned*, according to the

the *Hindu* legends, which will be found in a subsequent section, first by the approach of *Súrya*, or the Sun, and afterwards by the influence of *SANI*, or *Saturn*. Its principal city, where *Barbaréswara* had a distinguished temple, was called *Barbara-s't'ban*, and stood on the banks of the *Nile*: the *Tamóvanśa*, or Children of *TAMAS*, resided in it; and it is, most probably, the town of *TAMA*, which *PLINY* places on the eastern bank of the *Nile*, an hundred and twenty-nine *Roman* miles above *Syene* *.

The crude noun *Tamas*, in the first case *Tamah*, and *Tamó* before certain consonants, means *darkness*, and it is also a title of *SANI*; whose descendants are supposed to have lived in *Barbara*, and are represented as an ill-clothed, half-starved race of people, much like the present inhabitants of the same country. The following fables appear to be astrological, but might have had some foundation in history, as the *Hindu* regents of planets were in truth old philosophers and legislators, whose works are still extant.

TAMAH, or *SATURN*, had two wives, *ST'HAVIRA'* and *JARAT'HA'*, whose names imply *age* and *decrepitude*: by the former he had seven sons, *MRITYU*, *CA'LA*, *DA'VA*, *ULCA'*, *GHORA*, *ADHAMA*, *CAN'TACA*; by the latter only two, *MA'NDYA* and *GULICA*. The sons of *MA'NDYA* were *ASUBHA*, *ARISHT'HA*, *GULMA*, *PLI'HA*: those of *GULICA* were *GAD'HA* and *GRAHILA*: they were all abominable men, and their names denote every thing that is horrid. It is expressly said in the *Puránas*, that *TAMAH* was expelled from *Egypt* exactly at the time when *ARAMA*, a grandson of *SATYAVRATA*, died; that his children retired into *Barbara*; and that his grandson *GULMA* reigned over that country, when it was invaded by *CAPE'NASA*, who will presently appear, beyond a doubt, to be *CEPHEUS*. The *Tamóvanśas* are described as living in *Barbara* Proper, which is now called *Nubia*, and which lay, according to the *Indian* geography, between the *dwípas* of *SANC'HA* and of *CUSHA* *without*: but the other parts of *Barbara*, toward the mouths of the *Nile*, were inhabited by the children of *RA'HU*; and this brings us to another astronomical tale, extracted from a book, entitled *Chintáman'i*.

RA'HU is represented, on account of his tyranny, as an immense river-dragon, or crocodile, or rather a fabulous monster with four talons, called *Grába*, from a root implying *violent seizure*: the word is commonly interpreted *danger*, or *shark*, but in some dictionaries it is made synonymous to *nacra*, or *crocodile*; and, in the *Pu-*

* Plin. lib. 6. cap. 29.

rânas, it seems to be the creature of poetical fancy. The tyrant, however, in his human shape, had six children, DHWAJA, DHUMRA, SINHA, LAGUDĀ, DANDA', and CARTANA (which names are applied to *comets* of different forms), all equally mischievous with their father: in his allegorical character, he was decapitated by VISHNU; his lower extremity became the *Cétu*, or *dragon's tail*, and his head, still called *Rābu*, the *ascending node*; but the head is supposed when it fell on earth, to have been taken up by PIT'HĪNAS, or PIT'HĪN, and by him placed at *Rābu-j' bān* (to which the *Greeks* gave the name of *Heroöpolis*), where it was worshipped, and gave oracular answers; which may be the origin of the speaking heads, mentioned by *Jewish* writers as prepared by magick. The posterity of RAHU were from him denominated *Grābas*; and they might have been the ancestors of those *Graii*, or *Greeks*, who came originally from *Egypt*: it is remarkable, that HESIOD, in his *Theogony*, mentions women in *Africa* named *Graiai*, who had fine complexions, and were the offspring of PHORCYS and CETO. The *Grābas* are painted by the writers of the *Purānas* in most unfavourable colours; but an allowance must be made for a spirit of intolerance and fanaticism: RAHU was worshipped, in some countries, as HAILAL, or LUCIFER (whom in some respects he resembles), was adored in the eastern parts of *Egypt*, and in *Arabia*, the *Stony* and the *Desert*, according to JEROM, in the life of HILARION; but, though we must suppose, that his votaries had a very different opinion of the *Grābas* from that inculcated by the *Hindus*, yet it is certain, that the *Greeks* were not fond of being called *Graioi*, and very seldom gave themselves that appellation.

The sandy deserts in *Egypt*, to the east and west of the *Nile*, are considered by the *Purāns* as part of *Barbara*; and this may account for what HERODOTUS says of the word *Barbaros*, which, according to him, was applied by the *Egyptians* to all, *who were unable to speak their language*, meaning the inhabitants of the desert, who were their only neighbours: since the people of *Barbara*, or children of SATURN, were looked upon as a cruel and deceitful race, the word was afterwards transferred to men of that disposition; and the *Greeks*, who had lived in *Egypt*, brought the appellation into their new settlements, but seem to have forgotten its primitive meaning.

On the banks of the *Nilā* we find the *Crīṣṇa-giri*, or Black mountain of *Barbara*, which can be no other than the black and barren range of hills which Mr. BRUCE saw at a great distance towards the *Nile* from *Tarfowey*: in the caves of those mountains lived the *Tamavatsas*, of whom we shall speak hereafter. Though the land of

Barbara

Barbara be said in the *Purâns* to lie between the *dwîpas* of CUSHA and SANC'HA, yet it is generally considered as part of the latter. The *Nile*, on leaving the burning sands of *Barbara*, enters the country of SANC'HA Proper, and forces its way through the *Héma-cûta*, or Golden Mountains; an appellation which they retain to this day; the mountain called *Panchryfos* by the *Greeks*, was part of that range, which is named *Ollaki* by the *Arabs*; and the *Nubian* geographer speaks of the Golden Mountains, which are a little above *Oswân*. Having passed that ridge, the *Nilâ* enters *Cardama-s'bán*, or the Land of *Mud*; which obviously means the fertile *Egyptian* valley, so long covered with *Mud* after every inundation: the *Purânas* give a dreadful idea of that *muddy land*, and assert that no mortal durst approach it; but this we must understand as the opinion formed of it by the first colonists, who were alarmed by the reptiles and monsters abounding in it, and had not yet seen the beauty and richness of its fertile state. It is expressly declared to be in *Misra-s'bán*, or the *Country of a mixed People*; for such is the meaning in *Sanscrit* of the word *Misra*: sometimes the compound word *Misra-s'bán* is applied to the Lower *Egypt*, and sometimes (as in the history of the wars of *Capénasa*) to the whole country; in which sense, I am told, the word *Gupta-s'bán* is used in ancient books, but I have never yet seen it applied so extensively. *A Gupta* certainly means *guarded on all sides*; and *Gupta*, or *guarded*, is the name of a place reputed holy; which was, I doubt not, the famed *Coptos* of our ancient geographers; who mentioned a tripartite arrangement of *Egypt*, exactly conformable to the three divisions of *Misra-s'bán*, particularly recorded in the *Purânas*: the first of them was *Tapôvana*, the woodlands of *Tapâs*, or *austere devotion*, which was probably Upper *Egypt*, or *Thebais*; the second, *Misra* Proper, called also *Cantaca-désa*, or the Land of Thorns, which answers to the Lower *Egypt* or *Heptanomis*; and the third, *Aranya* and *Atavî*, or *the Forests* emphatically so named, which were situated at the mouths of the *Nilâ*, and formed what we call the *Delta*. The first inhabitants of *Egypt* found, on their arrival, that the whole country about the mouths of the *Nile* was an immense forest; part impervious, which they called *At'avî*, part uninhabited, but practicable, which had the name of *Aranya*.

TAPÔVANA seems to have been always adapted to religious austerities; and the first *Christian* anchorites used to seclude themselves in the wilds of *Thebes* for the purpose of contemplation and abstracted piety: thus we read, that the abbot PACHOMIUS retired, with his disciples, to the wilderness of *Tabenna*, and there built a monastery, the remains of which are still visible, a day's journey below *Dendera*,
near

near an island now called *Tabenna*, and, according to SICARD, a little below the site of *Thebes*. The country around *Dendera* is at this day covered with Forests of *Daum*; a tree, which some describe as a dwarf palm, and others as a *Rhamnus*; thence *Dendera* was called by JUVENAL the *shady Tentyra*.

There can be no doubt, that *Tapóvana* was Upper *Egypt*, or the *Thebais*; for several places, the situation of which will be clearly ascertained in the course of this essay, are placed by the authors of the *Puráns* in the forests of *Tapas*: the words *Thebais* and *Thebinites* are both said to be derivatives of *Thebai*; but the second of them seems rather derived from *Tapóvan* or *Tabenna*. So fond are nations of accommodating foreign words to their own language, that the *Arabs*, who have changed *Taposiris* into *Abu'ssair*, or *Father of Travel*, have, in the same spirit, converted *Tabenna* into *Medinatabind*, or the *Town of our Father*; though some of them call it *Medinat Tabu* from *Tapó*, which an *Arab* could not pronounce. The principal place in this division was *Cardama-s'balí*, which is mentioned in the *Puráns* as a temple of considerable note; the legend is, that GUPTESWARA and his consort had long been concealed in the mud of the *Nilà*, near *Gupta-s'bán*, or *Coptos*, but at length sprang from it and appeared at *Cardama-s'balí*, both wholly besmeared with mud, whence they had also the titles of CARDAME'SWARA and CARDAME'SWARI. We may observe, that *Gupta* signifies both *guarded* and *concealed*, and in either sense may be the origin of the word *Aiguptos*: as to *Cardama*, the canine letter is so often omitted in the vulgar pronunciation of *Sanfrit* words, that *Cádam*, or *Cadam*, seems to be the CADMUS of the *Greeks*; and we shall hereafter illustrate this etymology with circumstances, which will fully confirm it.

Misra-s'bán is called also *Misra* and *Misrena* in the sacred books of the *Hindus*; where it is said, that the country was peopled by a *mixed* race, consisting of various tribes, who, though living for their convenience in the same region, kept themselves distinct, and were perpetually disputing either on their boundaries, or, which is most probable, on religious opinions: they seem to be the *mingled people* mentioned in Scripture. To appease their feuds, BRAHMA' himself descended in the character of ISWARA: whence *Misrésvara* became one of the titles. The word *Misr*, which the *Arabs* apply to *Egypt* and to its metropolis, seems clearly derived from the *Sanfrit*; but, not knowing its origin, they use it for *any large city*, and give the appellation of *Almisrán* in the dual to *Cúfa* and *Basra*: the same word is also found in the sense of a *boundary*, or *line of separation*. Of *Misr* the dual and plural forms in *Hebrew* are *Misraim* and *Misrim*, and the second of them is often applied in scrip-
ture

ture to the people of *Egypt*. As to the *Mazor*, or more properly, *Masúr*, there is a difference of opinion among the translators of ISAIAH *: in the old *English* version we find the passage, in which the word occurs, thus rendered, “ the brooks of “ *defence* shall be emptied and dried up ;” but Bishop LOWTH, after some commentators, changes the *brooks* of *defence*, into the *canals* of *Egypt* ; and this is obviously the meaning of the prophet ; though the form of the word be more like the *Arabian* plural *Musúr* than any form purely *Hebrew*.

STEPHANUS of *Byzantium* says, that *Egypt* was called *Myara* by the *Phenicians* ; but surely this is a mistake for *Myfara* : according to SUIDAS and EUSEBIUS, it had the name of *Mesraia* ; but this, I conceive, should be written *Mesraia* from *Misréya*, which may be grammatically deduced from the root *Misr*. The name *Cantaca désa* was given to *Musra* for a reason similar to that of *Acanthus*, a town and territory abounding in *thorny trees*.

It was an opinion of the *Egyptian* priests, and of HERODOTUS also, when he was in their country, that the valley of *Egypt* was formerly an arm of the sea, which extended as far as the Cataracts : whether this opinion be well founded, is not now the question ; but a notion of the same kind occurs in the *Puránas*, and the *Bráhmens* account, in their way, for the alteration, which they suppose to have happened. PRAMÓDA, they say, was a king of *Sanc’ha-dwíp* Proper, and resided on the shore of the sea called *Sanc’hódadhi* : the country was chiefly peopled by *Mléch’has*, or or such as *speak barbarously*, and by savage *Rácshasas*, who are believed to be *evil demons* ; nor was a single *Bráhmén* to be found in the kingdom, who could explain the *Védas* and instruct mankind in their duties. This greatly afflicted the pious king ; till he heard of a *Rĩshi*, or *holy man*, eminent in piety and in sacred knowledge, who lived in the country of *Barbara*, and was named PÍ’T’HI or PÍ’T’HI-NASA, but was generally distinguished by the title of PÍ’T’HI-RĩSHI ; he was visited by PRAMÓDA in person, and, after many intreaties, prevailed on to accompany the king to *Sanc’ha-dwípa* ; but, when he saw the incorrigible wickedness of its inhabitants, he was wholly in despair of effecting any good in that country, and passed the night without sleep. Early in the morning he repaired to the sea-shore, where, taking water and *Cus’ha-grass* in his hand, he was on the point of uttering an imprecation on SANC’HÓ-DADHI : the God of the Ocean perceived his intent, and threw himself trembling at his feet, asking humbly what offence he had committed.

* Chap. 19. v. 6. See 2 Kings, 18. 24.

“Thy waters, answered the Saint, wash a polluted region, into which the king has conducted me, but in which I cannot exist: give me instantly a purer piece of land, on which I may reside and perform the duties of religion.” In that instant the sea of SANC’HA retired for the space of a hundred *yójanas*, or 492 miles, and left the holy man in possession of all the ground appearing on that dereliction: the king, on hearing of the miracle, was transported with joy, and caused a splendid palace to be built on an island in the territory newly acquired; it was called *Pit’bi-st’bân*, because *PI’T’HI* resided in it, having married the hundred daughters of *PRAMO’DA*; and, on his beginning to read lectures on the *Véda*, he was in a short time attended by numerous disciples. This fable, which had, probably, some foundation in truth, is related in a book, entitled, *Vis’wa-s’ra-pracáśa*, or a *Declaration of what is most excellent in the universe*.

PI’T’HI-ST’HA’N could not be very distant from *Cardama-st’balì*, or the city of *Thebes*, to which, according to the *Bráhmánda*, the Sage’s daughter, from him called *PAIT’HINI*, used to go almost every day for the purpose of worshipping *MAHA’DE’VA*: it seems, therefore, to be the *Pathros* of Scripture, named *Pathures* by the Greek interpreters, and *Pathuris* by *PLINY*, from whose context it appears to have stood at no great distance from *Thebes*; and it was, certainly, in Upper Egypt. It was probably the same place, which *PTOLEMY* calls *Tathyrís*, either by mistake or in conformity to the pronunciation of the *Ethiopians*, who generally substituted the letter *T* for *P*, which they could not articulate: from the data in *PTOLEMY* it could not have been above six miles to the west of *Thebes*, and was, therefore, in that large island formed by an arm of the *Nile*, which branches out at *Ermenth*, and rejoins the main body of the river at the *Memnomium*. According to the old *Egyptians*, the sea had left all Upper Egypt from the Cataracts as far as *Memphis*; and the distance between those two places is nearly that mentioned in the *Puránas*, or about an hundred *yójanas*: the God of the Ocean, it seems, had attempted to regain the land, which he had been forced to relinquish; but *MAHA’DE’VA* (with a new title derived from *NABHAS*, or the *sky*, and *ISWARA* or *lord*) effectually stopped his encroachments; and this was the origin of *Nabbab-st’bân*, or *Memphis*, which was the most distinguished among the many considerable places in *Misra*, and which appears to have consisted of several detached parts; as 1. *Ugra-st’bân*, so called from *UGRA*, the *UCHOREUS* of the *Greeks*; 2. *Nabbab*, the *Noph* of Scripture; 3. A part named *Misra*; 4. *Móbana-st’bân*, which may, perhaps, be the present *Mobannan*; and,

5. *Laya-*

5. *Laya-s't'hán*, or *Laya-vatì*, vulgarly pronounced *Layáti*, the suburb of *Lete*, or *Letopolis*.

Ródana-s't'han, or the place of Weeping, is the island in the lake of *Máris'hà*, or *Mæris*, concerning which we have the following *Indian* story in the *Viśvasāra-pracāsa*.

PETI'-S'UCA, who had a power of separating his soul from his body, voluntarily ascended toward heaven; and his wife MA'RI'SHA', supposing him finally departed, retired to a wilderness, where she sat on a hillock, shedding tears so abundantly, that they formed a lake round it; which was afterwards named *Asru-tirt'ba*, or *the holy place of tears*: its waters were black, or very dark azure, and the same colour is ascribed by STRABO to those of *Mæris*. Her son MED'HI, or MER'HI, SUCA had also renounced the world, and, seating himself near her, performed the same religious austerities: their devotion was so fervent and so long continued, that the inferior Gods began to apprehend a diminution of their own influence. At length MA'RI'SHA' dying *petivratà*, or *dutiful to her lord*, joined him among the *Viśnu-lóca*, or inhabitants of VISHNU's heaven; and her son, having solemnized the obsequies of them both, raised a sumptuous temple, in which he placed a statue of VISHNU, at the feet of his *weeping* mother; whence it acquired the appellation of *Ródana-s't'hána*. "They, who make ablutions in the lake of *Asru-tirt'ba*, says the "*Hindu* writer, are purified from their sins, and exempt from worldly affections, "ascending after death to the heaven of VISHNU; and they who worship the deity "at *Ródana-s't'hán* enjoy heavenly bliss, without being subject to any future trans- "migration." No lake in the world, except that of *Mæris*, corresponds, both in name and in circumstances, with that of *Asru-tirt'ba* and the island in the midst of it, which was also called *Mérhi*, or *Mérhi-s't'han*, from the name of the prince who consecrated it: the two statues on it were said by the *Greeks*, to be those of MÆRIS and his queen; but they appear from the *Purānas* to have been those of VISHNU, or OSIRIS, and of MA'RI'SHA', the mother of MÆRIS; unless the image of the God was considered in substance as that of the departed king, who, in the language of the *Hindu* theologians, was wholly *absorbed* in the divine essence. Three lakes in the countries adjacent to the *Nile*, have names in the *Purāns* derived from *asru*, or *tears*; first, *Sócāfru*, or *Tears of Sorrow*, another name for *Asrutirt'ba*, or *Mæris*; secondly, *Herśhāfru*, or *Tears of Joy*; and, thirdly, *Anandāfru*, or *Tears of an inward pleasurable sensation*; to both which belong legendary narratives in the *Purānas*. One of the infernal rivers was named *Asrumatì*, or the *Tearful*; but the first

of them was *Vaitarani*, where a boatman had been stationed to ferry over the souls of mortals into the region of YAMA: the word *vaitarana*, whence the name of the river is derived, alludes to the *fare* given for the passage over it.

III. We must now speak particularly of *Sanc'ha-dwîpa Proper*, or the *Island of Shells*, as the word literally signifies; for *Sanc'ha* means a sea-shell, and is generally applied to the large buccinum: the Red Sea, which abounds with shells of extraordinary size and beauty, was considered as part of the *Sanc'hâdbi*, or *Sanc'hôdadbi*; and the natives of the country before us wore large collars of shells, according to STRABO, both for ornament and as amulets. In the *Purânas*, however, it is declared, that the *dwîpa* had the appellation of *Sanc'ha*, because *its inhabitants lived in shells*, or in caverns of rocks hollowed like shells, and with entrances like the mouths of them: others insist, that the mountains themselves, in the hollows of which the people sought shelter, were no more than immense heaps of shells thrown on shore by the waves, and consolidated by time. The strange idea of an actual habitation in a shell was not unknown to the *Greeks*, who represent young *Nerites*, and one of the two *CUPIDS*, living in shells on the coasts of that very sea. From all circumstances collected, it appears, that *Sanc'ha-dwîpa*, in a confined sense, was the *Troglodytica* of the ancients, and included the whole western shore of the Red Sea; but that, in an extensive acceptation, it comprised all *Africa*: the *Troglodytes*, or *inhabitants of caves*, are called in Scripture also *Sukim*, because they dwelt in *fuca*, or *dens*; but it is probable, that the word *fuca*, which means a *den* only in a secondary sense, and signifies also an *arbour*, a *booth*, or a *tent*, was originally taken, in the sense of a *cave*, from *Sanc'ha*; a name given by the first inhabitants of the *Troglodytica* to the rude places of shelter, which they found or contrived in the mountains, and which bore some resemblance to the mouths of large *shells*. The word *Sanc'ha-dwîpa* has also in some of the *Purânas* a sense yet more limited, and is restrained to the land inhabited by the snake *Sanc'ha-nâga*, which included the mountains of *Hubb*, or the *Serpent*, and the *Abyssinian* kingdom of *Tigrè*: the same region is, however, sometimes called *Sanc'ha-vana*, and is reported to be a wonderfully fine country, watered by noble rivers and streams, covered with forests of the most useful and beautiful trees, and a hundred *yôjans* in length, or 492 miles; a dimension, which corresponds exactly enough with a line drawn from the southern limit of *Tigrè*, to the northern extremity of the *Hubâb* mountains. It lay between the *Câlicâ*, or *Câlî*, and the sea; its principal river was the *Sanc'ha-nâga*, now called *Mâreb*, and its capital city near the sea-shore, where the royal snake resided, had

had the name of *Cótimì*; not far from which was a part of the mountain *Dyuti-mán*, or *brilliant*, so called from the precious metals and gems, with which it abounded.

In the *Dherma-sástra* both *Nágas* and *Garudás* are named as *races of men* descended from *ATRI*, concerning whom we shall presently speak more at large; but, in the language of Mythology, the *Nágas*, or *Uragas*, are large *serpents*, and the *Garudás* or *Supernas*, immense *birds*, which are either the *Condors* of M. BUFFON and *Vulture Griffons* of LINNÆUS, called *Rokhs* by the *Arabian* fabulists and by MARCO POLO, or mere creatures of imagination, like the *SÍMORG* of the *Persians*, whom SADI describes as receiving his daily allowance on the mountain of *Káf*; whatever be the truth, the legend of *Sanc'ha-nága* and *Garudá* is told in the ancient books of the *Hindus*.

The king of Serpents formerly reigned in *Chacra-giri*, a mountain very far to the eastward: but his subjects were obliged by the power of GARUD'A to supply that enormous bird with a snake each day: their king at length refused to give the daily provision, and intercepted it himself, when it was sent by his serpentine race. This enraged GARUD'A, who threatened to devour the snakes and their king; nor would his menaces have been vain, if they had not all retired to *Sanc'ha-dwíp*, where they settled in *Sanc'ha-vana* between the *Cálì* and the sea, near the station of *Swámi CA'R-TICE'YA*, God of arms, where they are supposed to live still unmolested, because GARUD'A dares not approach the mansion of that more powerful divinity. "They," says the *Indian* writer, who perform yearly and daily rites in honour of SANC'HA-NA'GA, will acquire immense riches:" that royal serpent is also called SANC'HAMUC'HA, because his mouth was like that of a shell, and the same denomination is given to the rocks on which he dwelt. The Mountains of Snakes are mentioned by the *Nubian* Geographer, and are to this day called *Hubáb*, which in *Arabick* means a snake in general according to JAUHERI, and a particular species of serpent according to MAIDA'NI: the same region was named *Ophiusa* by the *Greeks*, who sometimes extended that appellation to the whole *African* continent. The breath of *Sanc'ha-nága* is believed by the *Hindus* to be a fiery poisonous wind, which burns and destroys animals and vegetables to the distance of a hundred *yójan*s round the place of his residence; and by this hypothesis they account for the dreadful effects of the *samúm*, or hot envenomed wind, which blows from the mountains of *Hubáb* through the whole extent of the Desert. Two *Rishis*, or *Saints*, named AGASTI and ASTRICA undertook to stop so tremendous an evil: the first of them repaired for that

that purpose to *Sanc'ba-vana*, where he took his *abode* at a place, thence called *Agasthi-bhuvana*, near the sea-shore, and not from *Cótinì*; but the gentle means, to which he had recourse with the royal snake, proved ineffectual. *A'STICA*, by harsher measures, had more success; and made the snake, say the *Bráhmens*, not only tractable, but even well-disposed to all such as respectfully approached him: he even reduced the size of the serpent so much, as to carry him about in an earthen vessel; and crowds of people are now said to worship him at the place of his residence near the river *Cálì*. This is, probably, the snake *HEREDI* so famed throughout *Egypt*: the *Muselmans* insist, that it is a *Sbaikh* of that name transformed into a snake; the *Christians*, that it is *ASMODEUS* mentioned in the book of *TOBIT*, the *Ashmúgh-dív* of the *Persian* romances; and the *Hindus* are equal to them in their superstitious notions. My learned friends at *Cási* inform me, that the sacred snake is at this day visited by travelling *Sannyásis*; but I cannot assert this as a fact, having never seen any *Hindu* who had travelled so far: those, whom I have seen, had never gone beyond the *Euphrates*; but they assured me, that they would have passed that river, if they had not been deterred by reports of disturbances among the *Arab* chiefs to the westward. The boldest religious adventurers, among the *Sannyásis*, are those from the north-west of *India*; for no native of *Bengal*, or, indeed, of the countries east of the *Ganges*, would now attempt (at least I never heard of any who had attempted) such perilous journeys. As to the belief of the *Hindus*, that *A'STICA* put an effectual stop to the fiery breath of *'Sanc'ba-nága* or the *Samúm*, it appears from the relation of *Mr. BRUCE*, that the second publick-spirited saint had no more success than the first.

We must observe, that *naga*, or *motionless*, is a *Sanscrit* name for a *mountain*, and that *nága*, its regular derivative, signifies both a *mountain-snake* and a wild *elephant*: accordingly we read of an *elephant-king* in *Sanc'ba*, who reigned on the banks of the *Mareb*, thence called *Sanc'ba-nága*; and, when *CRISHNA* had slain both him and his subject elephants, their *bones* were heaped on the banks of the *Tacazzè*, which from that event had the name of *Ast'himatì*.

The other parts of *Sanc'ba-dwíp* Proper, adjacent to the sea, were inhabited by the subjects of *SANC'HA'SURA*, whose palace was a *shell* in the ocean; but they are said to have resided in *shells*, on or near the mountains of the *African* continent: they are represented as cannibals, and even as demons incarnate, roaming by night and plundering the flat country, from which they carried off men, women, and children, whom they devoured *alive*; that is, perhaps, as raw flesh is now eaten in

Abyssinia.

Abyssinia. From this account it should seem, that the *Sanc'hásuras* lived in the caves of mountains along the coast, while their king resided in a cavern of the small island *Suakem*, where there still is a considerable town, in the middle of a large bay: he there, probably, concealed his plunder, and thence was reported to dwell in the ocean. The name of that island appears to have derived from *Sukhîm*, the plural of *Sukh*, in *Hebrew*, and the *Sanc'h* of the *Hindus*; by the ancient geographers it is called both *Sukhæ*, and the *Harbour of preserving Gods*, from the *preservation*, I suppose, of *Sanc'ha-dwîp* and its inhabitants by the *divine* assistance of *CRISHNA*; who, with an army of deities, attacked and defeated *SANC'HA'SURA*, pursuing him even through the sea, where he drew the monster from his *shell*, and put him to death.

Besides these first inhabitants of *Sanc'ha-dwîpa*, who are described by the Mythologists as *elephants*, *demons*, and *snakes*, we find a race, called *S'hanc'háyanas*, who are the real *Troglodytes*, or *Shangalas*; for *la* is a regular termination of *San'scrit* adjectives, as *Bhágala*, fortunate; *Sin'hala*, lion-like; *Bengala*, which properly means *belonging* to the country of *Benga*: they were the descendants of *ATRI* before named, whose history, being closely connected with that of the *Sacred Isles* in the west, deserves peculiar attention. He sprang, say the writers of the *Puránas* from the mind of *BRAHMA*, who appointed him a *Prajápati*, or *Lord of Creatures*, commanding him to produce a numerous race, and entrusting him with the *Védas*, which had existed eternally in the divine idea, that he might instruct his posterity in their civil and religious duties. *ATRI* first repaired to a western region, where he became the father of the lovely *Tubina-rasmi*, or *with dewy beams*: he thence passed into the country watered by the river *Sanc'ha-nága*, where proceeding to the *Sanc'ha-muc'ha* hills, he sat on the *Swéta-giri*, or *White Mountain*, fixed in deep meditation on the author of his existence. His arrival was quickly known throughout the country; and the few inhabitants of it came to worship him, bringing even their wives and daughters, that they might bear children by so holy a personage; but his days and nights being wholly devoted to contemplation and sacred acts, his only time for dalliance was during the morning twilight: he became, however, the ancestor of a considerable nation, who were distributed, like other *Hindus*, into the sacerdotal, military, commercial, and servile classes.

His first-born *SANC'HA'YANA* had a fair complexion and great bodily strength, but was irreligious, turbulent, and libidinous, eating forbidden flesh, and living in the caverns of rocks; nor were his brethren and their offspring better in the end than

than himself: thus the *Jews*, who have borrowed many *Indian* fables, which were current, I suppose, among their neighbours, insist in their *Talmud*, that ADAM begat none but demons, till he was 150 years old *. The pious patriarch, deeply afflicted by the vices of his children, expostulated with them long in vain, and, seeing no remedy, contented himself with giving them the best advice; teaching them how to make more habitable caves in the mountains, *pallis*, or arbours under trees, and *ghóshas*, or inclosures for their herds; permitting them to eat what they pleased; commanding them to dwell constantly on the mountains assigned to them, and to take particular care of the spot which their forefather had inhabited, calling it from his name *Atri-st'hán*. After this arrangement he left them, and went to the country near the *Sindhu*, or *Indus*, settling on the *Dévanicá* mountains; where he avoided the *morning twilight*, which had before been unprosperous, and produced a race eminent in virtue; for whom, when they multiplied, he built the famous city of *Nagara*, emphatically so called, and generally named *Déva-nagara*, which stood near the site of the modern *Cábul*.

Since the *Swéta-giri*, on which *Atri-st'hán* is declared to have stood, was at no great distance from the river *Sanc'ha-nága*, it is, most probably, the same with the *Amba-tzaada*, or White mountain, mentioned by Mr. BRUCE; who says, that it is the most considerable settlement of the *Shangalas*: it stands almost due north-west from *Dobarowa*, and is nearer by one-third to the *Mareb* than to the *Tacazzè*. The *pallis*, or arbours, of the *Shangalas*, are fully described by Mr. BRUCE, in a manner entirely conformable to the descriptions of them in the *Puráns*, except that they are not said always to be covered with skins: the *Pallis* of *India* live still in similar arbours during the greatest part of the year. That the *Sanc'háyanas* were the predecessors of the *Shangallas*, I have no doubt; though the former are said to have white complexions, and the latter to be black; for, not to insist, that the climate alone would, in a long course of years, effect a change of complexion; it is probable, that the race might be mixed, or that most of the old and genuine *Sanc'balas* might have been exterminated; and PLINY mentions a race of white *Ethiopians*, who lived to the west of the *Nile* †. Though *Atri-st'hán* be applied in the *Puráns* to the country also of the *Sanc'háyanas*, as well as to the station of ATRI, yet the regular derivative from his name is *Atréya*; and we find accordingly a part of *Ethiopia* named *Ætheria* by the *Greeks*, who called its inhabitants *Ætherü*; and STRABO confines

* Bruvin, p. 18.

† Lib. 5. cap. 70.

this appellation to a particular tribe, who seem to be the *Attiri* of PTOLEMY, and lived near the confluence of *Tacazzè* and the *Mareb* *: they were *Attréyas*, or descended from *ATRI*; but the *Greeks*, as usual, referred a foreign epithet to a word in their own language. In the *Dionysiacs* of NONNUS we read of *Ἀσιθεός Μερώνς*, which is translated *Meroe*, with *perpetual summer*; but, surely, the word can have no such meaning; and *Meroe* must have been so named, because it was once the capital of *Ætheria* †.

It appears from the *Purâns*, that the *Sanc'hâyanas*, or old *Sbangallas*, were not destitute of knowledge; and the *Brâhmens* admit, that they possessed a part at least of the *Vêdas*.

IV. The history of the *Cut'ila-céfas*, or men with *curled-hair*, is disguised in the following legend. SAGARA, an ancient monarch, who gave his name to the *sâgara* or *ocean*, was going to perform the *As'wamedha*, or *sacrifice of a horse*; when INDRA descended and stole the victim, which he conveyed to a place, near the mouth of the *Gangâ*, where the sage CAPILA was intent on his religious austerities: the God of the firmament there tied the horse by the side of the holy man, and retired unperceived by him. The monarch, missing the consecrated horse, dispatched his *sixty thousand* sons, or descendants, in search of him: they roved over the whole earth, and, finding him at last near the mansion of CAPILA, accused him of the sacrilege, and began to treat him with violence; but a flame issued from the eyes of the saint, which consumed them all in an instant. Their father, being apprized of their death, sent an army against CAPILA, who stood fixed to receive them; and, when they approached, unbound his *jat'à*, or *long plaited hair*, and, giving it a twist, struck the ground twice or thrice with it, casting an *oblique* glance of contempt on his adversaries: in that moment an army of men with *curled hair* sprang from the earth, attacked the legions of SAGAR, and defeated them. After their victory, they returned to the sage, asking who they were, and demanding a fit place of abode. CAPILA told them, that they were *Jatâpat*, or produced by the *fall of his locks* on the ground; that from the *side look*, which he had cast on his enemies, their hair was *cut'lia*, or crisp; that they should thence be called *Cut'ilas* and *Cut'ila-céfas*; that they must be *yât'-hata'byas*, or live *as they were*, when produced by him, that is, always prepared for just war; that they must repair to *Sanc'ha-dwîp*, and form a settlement, in which they would encounter many difficulties, and be continually

* Strabo, B. 11. p. 82.

† Dionys. B. 17. v. 396.

harassed by bad neighbours; but that, when CRISHNA should overpower and destroy SANC'HA'SURA, he would establish their empire, and secure it from future molestation. They accordingly travelled through the interior *Cussha-dwîpa*, where the greatest part of them chose to remain, and received afterwards a terrible overthrow from PARAS'U-RA'MA: the others passed into *Sanc'ha-dwîp*, and settled on the banks of the *Câlî*: but having revolted against DE'VANAUSHHA, they were almost wholly extirpated by that potent monarch.

Violent feuds had long subsisted between the family of GAUTAMA on one side, and those of VISWA'MITRA and JAMADAGNI on the other; the kings of *Cussha-dwîp* within took the part of GAUTAMA; and the *Haibayas*, a very powerful nation in that country (whom I believe to have been *Persians*), were inveterate against JAMADAGNI, whom they killed after defeating his army. Among the confederates in *Cussha-dwîpa* were the *Rômacas*, or dressed in *hair-cloth*; the *Sacas*, and a tribe of them called *Sacasénas*; the *Hindus* of the *Cshatriya* class, who then lived on the banks of the *Chacshus*, or *Oxus*; the *Pârâscas*, a nation beyond the *Nile*; the *Barbaras*, or people of *Nubia*; the inhabitants of *Câmbôja*; the *Cirâtas* and *Haritas*, two tribes of the *Pallis*; and the *Yavanas*, or ancestors of the *Greeks*.—These allies entered *India*, and defeated the troops of VISWA'MITRA, in the country called *Yudha-bbûmi*, or the Land of War, now *Yebud*, between the *Indus* and the *Behat*.

PARAS'U-RA'MA, the son of JAMADAGNI, but supposed afterwards to have been a portion of the divine essence in a human form, was enraged at the success of the confederates, and circulated a publick declaration, that NA'RED had urged him to extirpate them entirely; assuring him, that the people of *Cussha-dwîpa*, who dwelt in the hollows of mountains, were *cravyâdas*, or *carnivorous*; and that their King CRAVYA'DA'DHIPETI, or *Chief Ruler of Cannibals*, had polluted both *earth* and *water*, which were two of the eight forms of *ISA*, with the mangled limbs and blood of the strangers, whom he and his abominable subjects had cruelly devoured. After this proclamation, PARAS'U-RA'MA invaded *Cussha-dwîp*, and attacked the army of CRAVYA'DA'DHIPETI, who stepped from the ranks, and challenged him to single combat: they began with hurling rocks at each other; and RA'MA was nearly crushed under a mountain, thrown by his adversary; but, having disengaged himself, he darted huge serpents, which enfolded the giant in an inextricable maze, and at length destroyed him. The blood of the monster formed the *Lobita-c'han'da*, and that of his army, the *Lôbitôdâ*, or *river with bloody waters*: it is, I believe, the ADONIS of the ancients, now called *Nabru* IBRA'HÎ'M, the waters of which, at certain seasons

of

of the year, have a sanguine tint. I suppose CRAVYA'DA'DHIPATI to be the LYCURGUS EDONOS of the *Greeks*, who reigned in *Palestine* and in the country around *Damascus*: his friend CAICEYA, whom the *Greeks* called ORONTES, renewed the fight, and was also slain. Then came the King of the *Cutila-céfas*, and MAHA'SYAMA, ruler of the *Syáma-muc'has*, and usually residing in *Arvast'hán*, or *Arabia*; the former of whom I conceive to be BLEMYS; and the second ARABUS, whom the *Greek* Mythologists also named OROBANDAS and ORUANDES: they fought a long time with valour, but were defeated; and, on their humiliating themselves and imploring forgiveness, were allowed to retire, with the remains of their army, to the banks of the *Calí*, where they settled; while PARASU-RAMA, having terminated the war in *Cusba-dwípa*, returned to his own country, where he was destined to meet with adventures yet more extraordinary.

This legend is told nearly in the same manner by the poet NONNUS, a native of *Egypt*; who says, that, after the defeat of LYCURGUS, the *Arabs* yielded and offered sacrifices to BACCHUS; a title corrupted from BHAGAVAT, or the *preserving power*, of which a ray or portion had become incarnate in the person of PARASU-RAMA; he relates, that "BLEMYS, with *curled hair*, chief of the *ruddy*, or " *Erytbrean Indians*, held up a bloodless olive branch with the supplicating troops, " and bowed a servile knee to DIONYSOS, who had slain his *Indian* subjects; that " the God, beholding him bent to the ground, took him by the hand and raised " him; but conveyed him, together with his many-tongued people, far from the " dark *Erytbrean Indians* (since he abhorred the government and manners of DERI- " ADEUS), to the skirt of *Arabia*; that he, near the contiguous ocean, dwelt in the " happy region, and gave a name to the inhabitants of its towns; but that rapid " BLEMYS passed onward to the mouth of the *Nile* with seven branches, destined " to be cotemporary ruler over the people of *Ethiopia*; that the low ground of " *Etherian Meroë* received him as a chief, who should leave his name to the *Blemyes* " born in subsequent ages *."

The emigration of the *Cutila-céfas* from *India* to *Egypt* is mentioned likewise by PHILOSTRATUS in his life of APOLLONIUS. When that singular man visited the *Bráhmens*, who lived on the hills, to the north of *Srí-nagara*, at a place now called *Trilóci-naráyana* near the banks of the *Cédára-gangà*, the chief *Bráhmén*, whom he calls IARCHAS, gave him the following relation concerning the origin of the *Ethiopians*:

* Dionysiac. B. 17. ver. 385—397.

“ They resided, said he, formerly in this country, under the dominion of a king named GANGES; during whose reign the Gods took particular care of them, and the earth produced abundantly whatever was necessary for their subsistence; but, having slain their king, they were considered by other *Indians* as defiled and abominable. Then the seeds, which they committed to the earth, rotted; their women had constant abortions; their cattle was emaciated; and, wherever they began to build places of abode, the ground sank and their houses fell: the spirit of the murdered king incessantly haunted them, and would not be appeased until the actual perpetrators of the murder had been buried alive; and even then the earth forbade them to remain longer in this country. Their sovereign, a son of the river *Ganges*, was near ten cubits high, and the most majestic personage that ever appeared in the form of man: his father had once very nearly overflowed all *India*, but he directed the course of the waters towards the sea, and rendered them highly beneficial to the land; the goddesses of which supplied him, while he lived, with abundance, and fully avenged his death *.” The basis of this tale is unquestionably *Indian*, though it be clearly corrupted in some particulars: no *Bráhmén* was ever named *Iarchas*, which may be a corruption of *Arsha*, or *Arcsha*, or, possibly, of *YASCA*, the name of a sage, who wrote a glossary for the *Védas*; nor was the *Ganges* ever considered as a male deity; but the son of GANGA', or GANGEYA, was a celebrated hero. According to the *Hindu* legends, when CAPILA had destroyed the children of SAGARA, and his army of *Cut'ila-céfas* had migrated to another *dwípa*, the *Indian* monarch was long inconsolable; but his great grandson BHAGÍRAT'HA conducted the present *Ganges* to the spot where the ashes of his kindred lay; and they were no sooner touched by the divine water, than the sixty thousand princes sprang to life again: another story is, that, when the *Ganges* and other great rivers were swollen to such a degree, that the goddesses of earth were apprehensive of a general inundation, BHAGÍRAT'HA (leaving other holy men to take care of inferior rivers) led the *Ganges*, from him named *Bhágírat'bi*, to the ocean, and rendered her salutary to the earth, instead of destructive to it. These tales are obviously the same in substance with that told by IARCHAS, but with some variations and additional circumstances. APOLLONIUS most certainly had no knowledge of the *Indian* language; nor is it on the whole credible, that he was ever in *India* or *Ethiopia*, or even at *Babylon*: he never wrote an account of his travels; but the

* Philostr. Apollon. B. 3. ch. 6.

sophist PHILOSTRATUS, who seems to have had a particular design in writing the history of his life, might have possessed valuable materials, by the occasional use of which he imposed more easily on the publick. Some traveller might have conversed with a set of ignorant *Sannyásis*, who had, what most of them now have, an imperfect knowledge of ancient legends concerning the *Déváats*; and the description, which PHILOSTRATUS gives, of the place in the hills, where the supposed *Bráhmens* resided, corresponds exactly with a place called *Trilóci-náráyana* in the *Puráns*, which has been described to me from the information of *Sannyásis*, who ignorantly called it *Triyógi-náráyan*; but, for a particular account of it, I must refer to a geographical and historical description of the *Ganges* and the countries adjacent to it, which I have nearly completed.

The people named *Cutíla-céfas* are held by some *Bráhmens* to be the same with the *Háfyasílas*, or at least a branch of them; and some suppose, that the *Háfyasílas*, are the before-mentioned remnant of the *Cutíla-céfas*, who first settled on the banks of the *Nile*, and, after their expulsion from *Egypt* by DE'VA-NAHUSHA, were scattered over the *African* deserts; the *Gaituli*, or *Gaityli*, were of old the most powerful nation in *Africa*, and I should suppose them to be descendants of the first *Cutílas* or *Cutíls* (for so they are frequently called, especially in conversation), who settled first near the *Cáhi* river, and were also named *Háfyasílas*; but they must have dwelt formerly in *Bengal*: if there be any historical basis for the legend of CAPILA, who was performing acts of religious austerity at the mouth of the *Ganges*, near old *Ságar*, or *Gangá*, in the *Sunderbans*. They were black and had curled hair, like the *Egyptians* in the time of HERODOTUS; but at present there are no such negroes in *India*, except in the *Andaman* islands, which are now said to be peopled by cannibals, as they were, according to PTOLEMY, at least eighteen hundred years ago: from *Andaman* the *Greeks* made *Eudaimon*, and conceived it to be residence of a good genius. It is certain, that very ancient statues of Gods in *India* have crisp hair, and the features of negroes: some have caps, or tiaras, with curls depending over their foreheads, according to the precise meaning of the epithet *Cutílálaca*; others, indeed, seem to have their locks curled by art, and braided above in a thick knot; but I have seen many idols, on which the woolly appearance of the hair was so well represented as to preclude all doubt; and we may naturally suppose, that they were made by the *Cutílacéfas*, when they prevailed in this country. The *Bráhmens* ascribe these idols to the *Bauddhas*, and nothing can hurt them more, than to say that
any

any of their own Gods had the figure of *Habashis*, or negroes; and even the hair of *BUDHA* himself, for whom they have no small degree of respect, they consider as twisted in braids, like that of some modern *Sannyâsis*; but this will not account for the thick lips and flat noses of those ancient images; nor can it reasonably be doubted, that a race of negroes formerly had power and pre-eminence in *India*. In several parts of *India*, the mountaineers have still some resemblance to negroes in their countenance and hair, which is curled, and has a tendency to wool: it is very probable, that, by intermarriages with other outcasts, who have black complexions but straight hair, they have changed in a course of ages, like the *Cutila-céfas*, or old *Egyptians*; for the modern *Copts* are far from answering to the description given by *HERODOTUS*, and their features differ considerably from those of the mummies, and of ancient statues brought from *Egypt*, whence it appears, that their ancestors had large eyes with a long slit, projecting lips, and folded ears of a remarkable size.

V. Of the *Syâma-muc'has*, who migrated from *India*, the origin is not yet perfectly known; but their faces were black, and their hair straight, like that of the *Hindus*, who dwell on the plains: they were, I believe, the *straight-haired Ethiops* of the ancients*, and their king, surnamed *MAHA'SYA'MA*, or the *Great Black*, was probably the king *ARABUS*, mentioned by the *Greek* Mythologists, who was cotemporary with *NINUS*. They were much attached to the *Cutila-céfas*, whence we may infer, that the religious tenets of the two nations were nearly the same. It is believed, that they were the first inhabitants of *Arva-st'hân*, or *Arabia*; but passed thence into *Africk*, and settled on the banks of the *Nile*: the part of *Egypt*, which lies to the east of that river, is by some considered as part of *Arabia*; and the people who lived between the *Mediterranean* and *Meroë*, were by *JUBA* said to be *Arabs*.

VI. The first origin of the *Dánavas*, or Children of *DANU*, is as little known as that of the tribe last mentioned; but they came into *Egypt* from the west of *India*; and their leader was *BELI*, thence named *DA'NAVE'NDRA*, who lived at the time when the *Padma-mandira* was erected on the banks of the *Cumudvati*: the *Dánavas*, whom he governed, are frequently mentioned in the *Purânas* among the inhabitants of countries adjacent to the *Cáh*.

As to the *Strî-râjya*, or country governed by women, the *Hindus* assert, that the sovereign of it was always a Queen, and that all her officers, civil and military, were

* Ἰθιότριχες. Herod. Polyhymn.

females, while the great body of the nation lived as in other countries; but they have not in this respect carried the extravagance of fable to the same pitch with the *Greeks* in their accounts of the *Amazons*: it is related in the *Mallári Mábátmya*, that, when RA'VANA was apprehensive of being totally defeated, he sent his wives to distant countries, where they might be secure; that they first settled on the *Indian* peninsula near the site of *Srīrangapattana*, or *Seringapatnam*, but that, being disturbed in that station, part of them proceeded to the north of *Dwāraca* in *Gujarat*, and part into *Sanc'ba-dwīpa*, where they formed a government of women, whence their settlement was called *Strirājya*. It was on the sea-shore near the *Cula* mountains, extending about forty *yōjanas* in length, and surrounded by low swampy grounds, named *Ĵalabbūmi*, in *Sanścrit*, and *Daldal* in the vulgar idiom: *Strirājya*, therefore, must be the country of *Sabá*, now *Aſſab*, which was governed by a celebrated Queen, and the land round which has to this day the name of *Taltal*. The *Cula* mountains are that range which extends from *Dobarowa*, the *Coloë* of the ancient geographers, to the source of the *Tacazzè*, which *PROLEMY* calls the marsh of *Coloë*; a word which I suppose to be derived from the *Sanścrit*.

VII. *Yavana* is a regular participial form of the root *yu*, to *mix*; so that *yavana*, like *miśra*, might have signified no more than a *mingled* people: but, since *yonī*, or the *female nature*, is also derived from the same root, many *Pandits* insist, that the *Yavanas* were so named from their obstinate assertion of a superior influence in the *female*, over the *linga*, or *male nature*, in producing a perfect offspring. It may seem strange, that a question of mere physiology should have occasioned not only a vehement religious contest, but even a bloody war; yet the fact appears to be historically true, though the *Hindu* writers have dressed it up, as usual, in a veil of extravagant allegories and mysteries, which we should call obscene, but which they consider as awfully sacred. They represent NA'RA'YANA *moving*, as his name implies, *on the waters*, in the character of the *first male*, and the *principle* of all nature, which was wholly surrounded in the beginning by *tamas*, or *darkness*, the *Chaos* and primordial *Night* of the *Greek* Mythologists, and, perhaps, the *Thaumaz*, or *Thamas*, of the ancient *Egyptians*: the *Chaos* is also called *PRACRĪTI*, or crude Nature, and the male deity has the name of *PURUŠA*, from whom proceeded *Saśti*, or *power*, which, when it is ascribed to the earth, in contradistinction to the waters, is denominated *A'dhāra Saśti*, or, the *power of containing* or *conceiving*; but that *power* in its first state was rather a *tendency* or *aptitude*, and lay dormant or inert until

until it was excited by the *bija*, or vivifying principle of the plastick ISWARA. This *power*, or aptitude of nature, is represented under the symbol of the *yóni*, or *bhaga*, while the *animating principle* is expressed by the *linga*: both are united by the creative power, BRAHMA'; and the *yóni* have been called the *navel* of VISHNU, not identically, but nearly; for, though it is held in the *Védánta*, that the divine spirit penetrates or pervades all nature, and though the *Saeti* be considered as an emanation from that spirit, yet the emanation is never wholly detached from its source, and the penetration is never so perfect as to become a total union or identity. In another point of view BRAHMA' corresponds with the *Chronos*, or Time, of the *Greek* mythologists; for through him generations pass on successively, ages and periods are by him put in motion, terminated, and renewed, while he dies and springs to birth alternately; his existence or energy continuing for an hundred of *his* years, during which he produces and devours all beings of less longevity. VISHNU represents *water*, or the humid principle; and ISWARA, *fire*, which recreates or destroys, as it is differently applied: PRIT'HIVI', or *earth*, and *Ravi*, or the Sun, are severally *trimurtis*, or *forms* of the *three* great powers acting jointly and separately, but with different natures and energies, and by their mutual action, excite and expand the rudiments of material substances. The word *murti*, or form, is exactly synonymous with *εἶδωλον*; and, in a secondary sense, means an image; but, in its primary acceptation, it denotes any *shape*, or *appearance* assumed by a celestial being: our *vital souls* are, according to the *Védánta*, no more than *images*, or *εἶδωλα*, of the *supreme spirit*, and HOMER places the *idol* of HERCULES in *Elysium* with other deceased heroes, though the God himself was at the same time enjoying bliss in the heavenly mansions. Such a *múrti*, say the *Hindus*, can by no means affect with any sensation, either pleasing or painful, the being from which it emanated; though it may give pleasure or pain to collateral emanations from the same source: hence they offer no sacrifices to the supreme Essence, of which our own souls are *images*, but adore him with silent meditation; while they make frequent *homás*, or *oblations*, to fire, and perform acts of worship to the *Sun*, the *Stars*, the *Earth*, and the powers of *Nature*, which they consider as *múrtis*, or images, the same in kind with ourselves, but transcendently higher in degree. The Moon is also a great object of their adoration; for, though they consider the Sun and Earth as the two grand agents in the system of the universe, yet they know their reciprocal action to be greatly affected by the influence of the lunar orb according to their several aspects, and seem even

even to have an idea of *attraction* through the whole extent of nature. This system was known to the ancient *Egyptians*; for according the DIODORUS *, their VULCAN, or *elemental fire*, was the great and powerful deity, whose influence contributed chiefly toward the generation and perfection of natural bodies; while the ocean, by which they meant *water* in a collective sense, afforded the nutriment that was necessary; and the *Earth* was the vase, or capacious receptacle, in which this grand operation of nature was performed: hence ORPHEUS described the earth as the *universal Mother*; and this is the true meaning of the *Sanscrit* word *Ambá*. Such is the system of those *Hindus*, who admit an equal concurrence of the two principles; but the declared followers of VISHNU profess very different opinions from those adopted by the votaries of ISWARA: each sect also is subdivided according to the *degree* of influence, which some of them allow to be possessed by that principle, which on the whole they depreciate; but the pure *Vaishnavas* are in truth the same with the *Yónijas*, of whom we shall presently give a more particular account.

This diversity of opinion seems to have occasioned the general war, which is often mentioned in the *Puránas*, and was celebrated by the poets of the West, as the basis of the *Grecian* Mythology: I mean that between the Gods, led by JUPITER, and the Giants, or *Sons of the Earth*; or, in other words, between the followers of ISWARA and the *Yónijas*, or men produced, as they asserted, by PRIT'HIVI, a *power* or *form* of VISHNU; for NONNUS expressly declares † that the war in question arose between the partizans of JUPITER and those *who acknowledged no other deities but Water and Earth*: according to both NONNUS and the *Hindu* Mythologists, it began in *India*, whence it was spread over the whole globe, and all mankind appear to have borne a part in it.

These religious and physiological contests were disguised, in *Egypt* and *India*, under a veil of the wildest allegories and emblems. On the banks of the *Nile*, OSIRIS was torn in pieces; and on those of the *Ganges*, the limbs of his consort ISI' or SATTI', were scattered over the world, giving names to the places where they fell, and where they still are superstitiously worshipped: in the book entitled *Mahá calá sanbitá*, we find the *Grecian* story concerning the wanderings of DAMATER, and the lamentations of BACCHUS; for ISWARA, having been mutilated, through the imprecations of some offended *Munis*, rambled over the whole earth, bewailing his misfortune; while ISI' wandered also through the world singing mournful ditties

* Diod. Sic. B. 1.

† Dionys. B. 34. v. 241.

in a state of distraction. There is a legend in the *Servarāṣa*, of which the figurative meaning is more obvious. When SATI', after the close of her existence as the daughter of DACSHA, sprang again to life in the character of PA'RVATI', or *Mountain-born*, she was reunited in marriage to MAHA'DE'VA : this divine pair had once a dispute on the comparative influence of the sexes, in producing animated beings, and each resolved, by mutual agreement, to create apart a new race of men. The race produced by MAHA'DE'VA was very numerous, and devoted themselves exclusively to the worship of the male deity ; but their intellects were dull, their bodies feeble, their limbs distorted, and their complexions of different hues : PA'RVATI' had at the same time created a multitude of human beings who adored the female power only, and were all well shaped, with sweet aspects, and fine complexions. A furious contest ensued between the two races, and the *Lingajas* were defeated in battle ; but MAHA'DE'VA, enraged against the *Yónijas*, would have destroyed them with the fire of his eye, if PA'RVATI' had not interposed and appeased him ; but he would spare them only on condition, that they should instantly leave the country with a promise to see it no more ; and from the *yóni*, which they adored as the sole cause of their existence, they were named *Yavanas*. It is said, in another passage, that they sprang from the Cow 'SAVILA' ; but that cow was an incarnation of the goddess ISI' ; and here we find the *Egyptian* legend, adopted by the *Greeks*, of Io and Isis. After their expulsion, they settled, according to the *Purānas*, partly on the borders of *Varāha-dwīp*, and partly in the two *dwīpas* of CUSHA, where they supported themselves by predatory excursions and piracy, and used to conceal their booty in the long grass of *Cusha-dwīp within* ; but PA'RVATI' constantly protected them ; and, after the severe punishment of their revolt against DE'VA-NAHUSH, or DIONYSIUS, gave them a fine country, where, in a short time, they became a flourishing nation. Those *Yavanas*, who remained in the land of CUSHA, and on the banks of the *Cālī*, were perhaps the *Hellenick* shepherds mentioned in *Egyptian* history ; and it is probable that great part of those who had revolted against DIONYSIUS, retired after their defeat into *Greece* : all the old founders of colonies in that country had come originally from *Egypt* ; and even the *Athenians* admitted, that their ancestors formerly resided in the districts round *Sais*.

It is evident, that the strange tale in the *Servarāṣa* was invented to establish the opinion of the *Yónyancitas*, or votaries of DE'VI', that the good shape, strength, and courage of animals depend on the superior influence of the female parent, whose powers are only excited and put into action by the male *aura* ; but the *Lingāncitas*
 maintain

maintain an opposite doctrine, and the known superiority of mules begotten by horses, over those which are brought forth by mares, appears to confirm their opinion, which might also be supported by many other examples from the animal and vegetable worlds. There is a sect of *Hindus*, by far the most numerous of any, who, attempting to reconcile the two systems, tell us, in their allegorical style, that PARVATĪ and MAHA'DĒVA found their concurrence essential to the perfection of their offspring, and that VISHNU, at the request of the goddess, effected a reconciliation between them; hence the *navel* of VISHNU, by which they mean the *ostinca*, is worshipped as one and the same with the sacred *yōni*. This emblem too was *Egyptian*; and the mystery seems to have been solemnly typified, in the temple of JUPITER AMMON, by the vast *umbilicus* made of stone, and carried by eighty men in a *boat*, which represented the *fossa navicularis*: such, I believe, was the mystical *boat* of ISIS, which, according to LACTANTIUS, was adored in *Egypt**; we are assured by TACITUS, that the *Suevi*, one of the oldest and most powerful *German* nations, worshipped ISIS in the form of a ship; and the *Chaldeans* insisted, that the *Earth*, which, in the *Hindu* system, represents PARVATĪ, was shaped and hollowed like an immense *boat*. From *Egypt* the type was imported into *Greece*; and an *umbilicus* of white marble was kept at *Delphi* in the sanctuary of the temple, where it was carefully wrapt up in cloth†. The mystical *boat* is called also, by *Greek* Mythologists, the *cup* of the Sun, in which HERCULES, they say, traversed the Ocean; and this HERCULES, according to them, was the son of JUPITER; but the *Greeks*, by whom the notion of an *avatāra*, or *descent* of a God in a human form, had not been generally adopted, considered those as the *sons*, whom the *Hindus* consider as *incarnate rays* or *portions*, of their several deities: now JUPITER was the ISWARA of the *Hindus*, and the OSIRIS of the *Egyptians*; and HERCULES was an *avatāra* of the same divinity, who is figured, among the ruins of *Luxorein*, in a *boat*, which eighteen men bear on their shoulders. The *Indians* commonly represent this mystery of their physiological religion by the emblem of a *Nymphæa*, or *Lotos*, *floating like a boat* on the boundless ocean; where the whole plant signifies both the *Earth* and the two principles of its fecundation: the *germ* is both *Méru* and the *linga*; the *petals* and *filaments* are the mountains which encircle *Méru*, and are also a type of the *yōni*; the leaves of the *calyx* are the *four* vast regions to the cardinal points of *Méru*, and the *leaves* of the plants are the *dwīpas* or *isles*,

* Lactant. Divin. Instit. L. i. c. 2.

† Strab. B. 9. 420.

round the land of *Jambu*. Another of their emblems is called *Argba*, which means a *cup* or *dish*, or any other *vessel*, in which *fruit* and *flowers* are offered to the deities; and which *ought* always to be *shaped like a boat*, though we now see *arghas* of many different forms, oval, circular, or square; and hence it is that ISWARA has the title of *Arghánát'ba*, or the *Lord of the boat-shaped vessel*: a rim round the *argba* represents the mysterious *yóni*, and the *navel* of VISHNU is commonly denoted by a *convexity* in the centre, while the contents of the vessel are symbols of the *linga*. This *argba*, as a type of the *ádhára-sákti*, or *power of conception*, excited and vivified by the *linga*, or *Phallus*, I cannot but suppose to be one and the same with the ship *Argo*, which was built, according to ORPHEUS, by JUNO and PALLAS, and according to APOLLONIUS, by PALLAS and ARGUS at the instance of JUNO*: the word *Yóni*, as it is usually pronounced, nearly resembles the name of the principal *Hetruscan* Goddess, and the *Sanſcrit* phrase *Arghánát'ba* ISWARA seems accurately rendered by PLUTARCH, when he asserts that OSIRIS was commander of the *Argo*†. I cannot yet affirm, that the words *p'hala*, or *fruit*, and *p'hulla*, or a *flower*, have ever the sense of *Phallus*; but fruit and flowers are the chief oblations in the *argba*, and *trip'hala* is a name sometimes given, especially in the west of *India*, to the *trifúla*, or trident, of MAHA'DE'VA: in an essay on the geographical antiquities of *India* I shall show, that the JUPITER *Triphylius* of the *Panchæan* islands was no other than SIVA holding a *trip'hala*, who is represented also with *three eyes*, to denote a triple energy, as VISHNU and PRIT'HIVI are severally typified by an equilateral *triangle* (which likewise gives an idea of *capacity*), and conjointly, when their powers are supposed to be combined, by two such equal triangles intersecting each other.

The three sects, which have been mentioned, appear to have been distinct also in *Greece*. 1. According to THEODORET, ARNOBIUS, and CLEMENS of *Alexandria*, the *Yóni* of the *Hindus* was the sole object of veneration in the mysteries of *Eleusis*: when the people of *Syracuse* were sacrificing to goddesses, they offered cakes in a certain shape, called *μύλλοι*; and in some temples, where the priestesses were probably ventriloquists, they so far imposed on the credulous multitude, who came to adore the *yóni*, as to make them believe that it spoke and gave oracles. 2. The rites of the *Phallus* were so well known among the *Greeks*, that a metre, consisting of three trochees only, derived its name from them: in the opinion of

* Orph. Argon. v. 66. Apoll. Rhod. B. 2. v. 1190.

† Pluto on *Isis* and *Osiris*.

those who compiled the *Purānas*, the *Pballus* was first publicly worshipped, by the name of *Bālāswara-linga*, on the banks of the *Cumudvati*, or *Euphrates*; and the *Jews*, according to *Rabbi* ΑΕΗΑ, seem to have had some such idea, as we may collect from their strange tale concerning the different earths which formed the body of ADAM *. 3. The middle sect, however, which is now prevalent in *India*, was generally diffused over ancient *Europe*; and was introduced by the *Pelargi*, who were the same, as we learn from HERODOTUS, with the *Pelafgi*. The very word *Pelargos*, was probably derived from *P'bala* and *Argba*, those mysterious types, which the later mythologists disguised under the names of PALLAS and ARGO; and this conjecture is confirmed by the rites of a deity, named PELARGA, who was worshipped near *Thebes* and *Bæotia*, and to whom, says PAUSANIAS, no victim was offered but *a female recently covered and impregnated*; a cruel sacrifice, which the *Indian* law positively forbids, but which clearly shows the character of the goddess to whom it was thought acceptable. We are told, that her parents were POTNEUS and ISTHMIAS, or BACCHUS and INO (for the *Bacchantes* were called also *Potniades*), by whom we cannot but understand OSIRIS and ISIS, or the ISWARA and ISI of the *Hindus*. The three words *Ambà*, *Nàbbi*, and *Argba*, seem to have caused great confusion among the *Greek* Mythologists, who even ascribed to the Earth all the fanciful shapes of the *Argba*, which was intended at first as a mere emblem: hence they represented it in the shape of a *boat*, of a *cup*, or of a quoit with a boss in the centre, sloping towards the circumference, where they placed the ocean; others described it as a square or a parallelogram †, and *Greece* was supposed to lie on the summit, with *Delphi* in the *navel*, or central part, of the whole ‡; as the *Jews* and even the first *Christians*, insisted that the true *navel* of the earth was *Jerusalem*; and as the *Muselmans* hold *Mecca* to be the *Mother of Cities*, and the *nâsi zemîn*, or Earth's *navel*. All these notions appear to have arisen from the worship, of which we have been treating: the *yóni* and *nàbbi*, or *navel*, are together denominated *ambà*, or *mother*; but gradually the words *ambà*, *nàbbi*, and *argba*, have become synonymous; and as ἀμῆν and *umbo* seem to be derived from *Ambà*, or the circular *argba* with a boss like a target, so ὑμφαλλῶ and *umbilicus* apparently spring from the same root, and even the word *navel*, though originally *Gothick*, was the same anciently with *nàbbi* in *Sanscrit*, and *nâf* in *Persian*. The sacred *ancilia*, one of which was revered as the *Palladium* of *Rome*, were probably types of a similar

* Gemara Sanhedrin, C. 30. cited by Ryland.

† Agathem. B. 1. c. 1.

‡ Pind. Pyth. 6. Eurip. Ion. v. 233. Cleomedes, B. 1.

nature to the *argha*, and the shields, which used to be suspended in temples, were possibly votive *ambás*. At *Delphi* the mystick *Omphalos* was continually celebrated in hymns as a *sacred pledge* of divine favour, and the *navel of the world*: thus the mystick boat was held by some of the first emigrants from *Asia* to be their pædium, or pledge of safety, and, as such, was carried by them in their various journeys; whence the poets feigned, that the *ARGO* was borne over mountains on the shoulders of the *Argonauts*. I know how differently these ancient emblems of the *Hindus*, the Lotus and mount *Méru*, the *Argha*, or sacred vessel, and the name *Arghanát'ba*, would have been applied by Mr. BRYANT; but I have examined both applications without prejudice, and adhere to my own as the more probable, because it corresponds with the known rites and ceremonies of the *Hindus*, and is confirmed by the oldest records of their religion.

Such have been, according to the *Puránas*, the various emigrations from *India* to *Cushadwíp*; and hence part of *Africa* was called *India* by the *Greeks*: the *Nile*, says THEOPHYLACT, flows through *Lybia*, *Ethiopia*, and *India**; the people of *Mauritania* are said, by STRABO, to have been *Indians* or *Hindus*†; and *Abyssinia* was called Middle *India* in the time of MARCO PAOLO. Where OVID speaks of *ANDROMEDA*, he asserts, that she came from *India*; but we shall show, in another section, that the scene of her adventures was the region adjacent to the *Nile*: the country between the *Caspian* and the *Euxine* had the names both of *India* and *Ethiopia*; even *Arachosia* is called White *India* by ISIDORUS; and we have already mentioned the Yellow *India* of the *Persian*, and the Yellow *Indians* of the *Turkish*, geographers. The most venerable emigrants from *India* were the *Yádavas*: they were the blameless and pious *Ethiopians*, whom HOMER mentions, and calls the remotest of mankind. Part of them, say the old *Hindu* writers, remained in this country; and hence we read of two *Ethiopian* nations, the Western and the Oriental: some of them lived far to the east, and they are the *Yádavas*, who stayed in *India*; while others resided far to the west, and they are the sacred race, who settled on the shores of the *Atlantick*. We are positively assured by HERODOTUS, that the oriental *Ethiopians* were *Indians*; and hence we may infer, that *India* was known to *Greeks*, in the age of HOMER, by the name of eastern *Ethiopia*: they could not then have known it by the appellation of *India*, because that word, whatever may be its original meaning, was either framed or corrupted by the *Persians*, with whom,

* B. 7. c. 17.

† B. 17. p. 323.

as long as their monarchs remained satisfied with their own territories, the *Greeks* had no sort of connection. They called it also the land of *Panchœa*, but knew so little of it, that, when they heard of *India*, through their intercourse with the *Persians*, they supposed it to be quite a different country. In *Persian*, the word *Hindu* means both an *Indian* and any thing *black*, but whether, in the latter sense, it be used metaphorically, or was an adjective in the old language of *Persia*, I am unable to ascertain: it appears from the book of *ESTHER*, that *India* was known to the *Hebrews* in *Persia* by the name of *Hodu*, which has some resemblance to the word *Yadu*, and may have been only a corruption of it. *Hindu* cannot regularly be derived, as an *English* writer has suggested, from a *Sanscrit* name of the moon, since that name is *INDU*; but it may be corrupted from *Sindhu*, or the *Indus*, as a learned *Bráhmén* has conjectured, for the hissing letter is often changed into an aspirate; and the *Greek* name for that river seems to strengthen his conjecture. Be it as it may, the words *Hindu* and *Hindust'bán* occur in no *Sanscrit* book of great antiquity; but the epithet *Haindava*, in a derivative form, is used by the poet *CALIDA'S*: the modern *Bráhméns*, when they write or speak *Sanscrit*, call themselves *Hindus*; but they give the name of *Cumára-c'banda* to their country on both sides the *Ganges*, including part of the peninsula, and that of *Nága-c'banda* to the districts bordering on the *Indus*.

Next to the emigration of the *Yádavas*, the most celebrated was that of the *Pális*, or *Páliputras*; many of whose settlements were named *Pálist'bán*, which the *Greeks* changed into *Palaiistinè*: a country so called was on the banks of the *Tigris*, and another in *Syria*; the river *Strymon* had the epithet *Palaiistinos*; in *Italy* we find the *Pelestini*, and, at the mouth of the *Po*, a town called *Philistina*; to which may be added the *Philistinæ fossiones*, and the *Palestinæ arenæ* in *Epirus*. As the *Greeks* wrote *Palai* for *Páli*, they rendered the word *Paliputra* by *Palaigonos*, which also means the offspring of *Páli*; but they sometimes retained the *Sanscrit* word for *son*, and the town of *Palaipatrai*, to this day called *Paliputra* by the natives, stood on the shore of the *Hellepont*: these disquisitions, however, would lead me too far; and I proceed to demonstrate the ancient intercourse between *Egypt* and *India*, by a faithful epitome of some mythological and astronomical fables which were common to both those countries.

SECTION THE SECOND.

OSIRIS, or, more properly, YSIRIS, according to HELLANICUS, was a name used in *Egypt* for the Supreme Being *; in *Sanſcrit* it ſignifies Lord, and, in that ſenſe, is applied by the *Bráhmens* to each of their three principal deities, or rather to each of the principal *forms*, in which they teach the people to adore BRAHM, or the Great One; and, if it be appropriated in common ſpeech to MAHA'DE'VA, this proceeds from the zeal of his numerous votaries, who place him above their two other divinities. BRAHMA', VISHNU, and MAHA'DE'VA, ſay the *Pauránics*, were brothers; and the *Egyptian* Triad, or OSIRIS, HORUS, and TYPHON, were brought forth by the ſame parent, though HORUS was believed to have ſprung from the myſterious embraces of OSIRIS and ISIS before their birth; as the *Vaiſhnavaſ* alſo imagine, that HARA, or MAHA'DE'VA, ſprang myſtically from his brother HERI, or VISHNU. In the *Hindu* mythology BRAHMA' is repreſented of a red, VISHNU, of a black, or dark azure, and HARA of a white, complexion; but in that of *Egypt*, we find OSIRIS black, HORUS white, and TYPHON red: the indifcriminate application of the title ISWARA has occaſioned great confuſion in the accounts, which the *Greeks* have tranſmitted to us, of *Egyptian* Mythology; for the prieſts of *Egypt* were very reſerved on ſubjects of religion, and the *Grecian* travellers had in general too little curioſity to inveſtigate ſuch points with ſcrupulous exactneſs: ſince OSIRIS, however, was painted *black*, we may preſume, that he was VISHNU, who, on many occaſions, according to the *Puránas*, took *Egypt* under his ſpecial protection. CRISHNA was VISHNU himſelf, according to the moſt orthodox opinion; and it was he, who viſited the countries adjacent to the *Nile*, deſtroyed the tyrant SANC'-HA'SURA, introduced a more perfect mode of worſhip, cooled the conflagrations, which had repeatedly deſolated thoſe aſuſt regions, and eſtabliſhed the government of the *Cutila-céſas*, or genuine *Egyptians*, on a permanent baſis: thus OSIRIS, as we are told by PLUTARCH, taught the old *Egyptians* to make laws and to honour the Gods. The title *Sri-Bhagavat*, importing *proſperity* and *dominion*, is given peculiarly to CHRISHNA, or the *black* deity, and the black OSIRIS had alſo the titles of *Sirius*, *Seirius*, and *Bacchus*. It is related, indeed, that OSIRIS, or BACCHUS, imported from *India* the worſhip of two divine Bulls; and, in this character, he

* Plut. on *Iſis* and *Oſiris*.

was MAHA'DE'VA, whose followers were pretty numerous in *Egypt*: for HERMAPION, in his explanation of the hieroglyphicks on the *Heliopolitan* obelisk, calls HORUS the Supreme *Lord*, and the author of *Time* *: now ISWARA, or *Lord*, and CA'LA, or *Time*, are among the distinguished titles of MAHA'DE'VA; and obelisks or pillars, whatever be their shape, are among his emblems. In the *Vribad-baima*, which appears to contain many curious legends concerning *Egypt*, it is expressly said, that "ISWARA, with his consort PA'RVATI, descended from heaven, and "chose for his abode the land of *Misra* in *Sanc'ha-dwip*." We must observe, that the *Egyptians* feared and abhorred TYPHON, or MAHA'DE'VA in his character of *the Destroyer*; and the *Hindus* also dread him in that character, giving him the name of *Bhairava*, or *Tremendous*: the *Egyptian* fable of his attempt to break the *Mundane Egg* is applied to MAHA'DE'VA in the little book *Chandî*, which is chiefly extracted from the *Mârcandéya Purân*. There is a striking resemblance between the legendary wars of the three principal Gods in *Egypt* and *India*; as OSIRIS gave battle to TYPHON, who was defeated at length, and even killed by HORUS, so BRAHMA' fought with VISHNU and gained an advantage over him, but was overpowered by MAHA'DE'VA, who cut off one of his five heads; an allegory, of which I cannot pretend to give the meaning.

PLUTARCH asserts, that the priests of *Egypt* called the Sun *their Lord and King*; and their three Gods resolve themselves ultimately into him alone: OSIRIS was the Sun; HORUS was the Sun; and so, I suppose, was TYPHON, or the *power of destruction by heat*, though PLUTARCH says gravely, that *such as maintained that opinion, were not worthy to be heard*. The case was nearly the same in ancient *India*; but there is no subject on which the modern *Bráhmens* are more reserved; for when they are closely interrogated on the title of *Déva*, or God, which their most sacred books give to the sun, they avoid a direct answer, have recourse to evasions, and often contradict one another and themselves: they confess, however, unanimously, that the Sun is an emblem, or image, of their three great deities jointly and individually, that is, of BRAHM, or the Supreme One, *who alone exists really and absolutely*, the three male divinities themselves being only *Máyà*, or illusion. The body of the sun they consider as *Máyà*; but, since he is the most glorious and active emblem of GOD, they respect him as an object of high veneration. All this must appear very mysterious; but it flows from the principal tenet of the *Védántis*, that

* Ammian, Marcellin.

the only being which has absolute and real existence, is the divine spirit, infinitely wise, infinitely benign, and infinitely powerful, expanded through the universe, not merely as the *soul of the world*, but as the *provident ruler* of it, sending forth rays or emanations from his own essence, which are the pure vital souls of all animated creatures, whether *moveable* or *immoveable*, that is (as we should express ourselves), both *animals* and *vegetables*, and which he calls back to himself, according to certain laws established by his unlimited wisdom; though *Brabmā* be neuter in the character of the Most High One, yet, in that of *Supreme Ruler*, he is named *PARAMESWARA*; but though the infinite veneration, to which he is entitled, the *Hindus* meditate on him with silent adoration, and offer prayers and sacrifices only to the higher emanations from him. In a mode incomprehensible to inferior creatures, they are involved at first in the gloom of *Máyā*, and subject to various taints from attachment to worldly affections; but they can never be reunited to their source, until they dispel the illusion by self-denial, renunciation of the world, and intellectual abstractions, and until they remove the impurities which they have contracted, by repentance, mortification, and successive passages through the forms of animals or vegetables according to their demerits: in such a reunion consists their final beatitude, and to effect it by the best possible means is the object of their supreme ruler; who, in order to reclaim the vicious, to punish the incorrigible, to protect the oppressed, to destroy the oppressor, to encourage and reward the good, and to show all spirits the path to their ultimate happiness, has been pleased, say the *Bráhmens*, to manifest himself in a variety of ways, from age to age, in all parts of the habitable world. When he acts immediately, without assuming a shape, or sending forth a new emanation, as when a divine sound is heard from the sky, that manifestation of himself is called *Āśavānī*, or an *ethereal voice*: when the voice proceeds from a meteor, or a flame, it is said to be *agnirūpī*, or *formed of fire*; but an *avatāra* is a *descent* of the deity in the shape of a mortal; and an *avántara* is a similar incarnation of an inferior kind, intended to answer some purpose of less moment. The Supreme Being, and the celestial emanations from him, are *nirácará*, or *bodiless*, in which state they must be invisible to mortals; but, when they are *pratyakṣá*, or *obvious to sight*, they become *śácará*, or *embodied*, either in shapes different from that of any mortal, and expressive of the divine attributes, as *CRISHNA* revealed him to *ARJUN*, or in a human form, which *CRISHNA* usually bore; and, in that mode of appearing, the deities are generally supposed to be born of women, but without any carnal intercourse. Those who follow the *Púrva Mímáṃsā*, or philosophy of

JAIMINI,

JAIMINI, admit no such incarnations of deities, but insist, that the *Dévas* were mere mortals, whom the Supreme Being was pleased to endue with qualities approaching to his own attributes; and the *Hindus* in general perform acts of worship to some of their ancient monarchs and sages, who were deified in consequence of their eminent virtues. After these introductory remarks, we proceed to the several manifestations, in *Egypt* and other countries adjacent to the *Nile*, of DE'VI and the three principal gods of the *Hindus*, as they are expressly related in the *Purânas* and other *Sanscrit* books of antiquity.

DE'VI, or the *Goddess*, and ISI, or the *Sovereign Queen*, is the *ISIS* of *Egypt*, and represents *Nature* in general, but in particular the *Earth*, which the *Indians* call PRIT'HIVI; while *water* and *humidity* of all kinds are supposed by the *Hindus* to proceed from VISHNU, as they were by the *Egyptians* to proceed from OSIRIS: this account of *ISIS* we find corroborated by PLUTARCH; and SERVIUS asserts, that the very word *ISIS* means *Earth* in the language of the *Egyptians*; but this I conceive to be an error.

I. It is related in the *Scânda*, that, when the whole earth was covered with water, and VISHNU lay extended asleep in the bosom of DE'VI, a lotos arose from his navel, and its ascending flower soon reached the surface of the flood; that BRAHMA sprang from that flower, and, looking round without seeing any creature on the boundless expanse, imagined himself to be the first-born, and entitled to rank above all future beings; yet resolved to investigate the deep, and to ascertain whether any being existed in it who could controvert his claim to pre-eminence. He glided, therefore, down the stalk of the lotos, and, finding VISHNU asleep, asked loudly who he was: "I am the first-born," answered VISHNU waking; and, when BRAHMA denied his primogeniture, they had an obstinate battle, till MAHA'DE'VA pressed between them in great wrath, saying: "It is I, who am truly the first-born; but I will resign my pretensions to either of you, who shall be able to reach and behold the summit of my head or the soles of my feet." BRAHMA instantly ascended, but, having fatigued himself, to no purpose, in the regions of immensity, yet loth to abandon his claim, returned to MAHA'DE'VA, declaring that he had attained and seen the crown of his head, and calling, as his witness, the first-born cow: for this union of pride and falsehood the angry god ordained, that no sacred rites should be performed to BRAHMA, and that the *mouth* of the cow should be defiled and a cause of defilement, as it is declared to be in the oldest *Indian* laws. When VISHNU returned, he acknowledged that he had not been able to see the feet

of MAHA'DE'VA, who then told him, that he was really the first-born among the Gods, and should be raised above all: it was after this, that MAHA'DE'VA cut off the fifth head of BRAHMA', whose pride, says the writer of the *Scanda Purán*, occasioned his loss of power and influence in the countries bordering on the river *Cálì*. Whether these wild stories on the wars of the three principal Gods mean only the religious wars between the several sectaries, or whether they have any more hidden meaning, it is evident from the *Puránas*, which represent *Egypt* as the theatre of action, that they are the original legends of the wars between OSIRIS, HORUS, and TYPHON; for BRAHMA' in his character of all-destroying *Time*, corresponds with TYPHON; and MAHA'DE'VA, in that of the *productive principle*, with HARUS or HORA, who assumes each of his characters on various occasions, either to restore the powers, or to subdue the opponents, of VISHNU, or active Nature, from whom his auxiliary springs. In *Egypt*, says PLUTARCH, certain sacrifices were made even to TYPHON, but only on particular days, and for the purpose of consoling him after his overthrow; as in *India* no worship is paid to BRAHMA', except on particular occasions, when certain offerings are made to him, but placed at some distance from the person who offers them: the *Greeks* have confounded TYPHON with PYTHON, whose history has no connection with the wars of the Gods, and who will appear in the following section, to be the PAIT'HI'NASI of the *Hindus*. The idea of MAHA'DE'VA with *his head in the highest heaven, and his feet in the lowest parts of the earth*, is conformable to the language of the oracle, in its answer to NICOCRATES, King of *Cyprus*:

Οὐράνι⊕ κόσμ⊕ κεφαλὴ,——
Γαῖα δέ μοι πόδες——

And the same image is expressed, word for word, at the beginning of the fourth *Véda*, where the deity is described as *Mahápurusha*, or the *Great Male*.

In the story of the war between OSIRIS and TYPHON, mention is made by PLUTARCH of a stupendous *Boar*, in search of whom TYPHON travelled, with a view, perhaps, to strengthen his own party by making an alliance with him: thus it is said in the *Vaishnavágama*, that CRO'RA'SURA was a demon, with the face of a *Boar*, who, nevertheless, was continually reading the *Véda*, and performing such acts of devotion, that VISHNU appeared to him on the banks of the *Bráhmáputra*, promising to grant any boon that he could ask. CRO'RA'SURA requested, that no creature, then existing in the three worlds, might have power to deprive him of life; and

and VISHNU granted his request: but the demon became so insolent, that the *Dé-vatás*, whom he oppressed, were obliged to conceal themselves, and he assumed the dominion of the world. VISHNU was then sitting on a bank of the *Cálí*, greatly disquieted by the malignant ingratitude of the demon; and, his wrath being kindled, a shape, which never before had existed, sprang from his eyes; it was MAHA'DE'VA, in his destructive character, who *dispelled* in a moment the anxiety of VISHNU, whence he acquired the surname of CHINTA'HARA. With flaming eyes, contracted brows, and his whole countenance distorted with anger, he rushed toward CRO'RA-SURA, seized him with fury, and carried him under his arm in triumph over the whole earth, but at length cast him lifeless on the ground, where he was transformed into a mountain, still called the Mountain of CRO'RA, or the *Boar*: the place where VISHNU sat by the river *Cálí*, has the name of *Chintábara-s'balí*; and "all they," says the author of the *Ágama*, who are troubled with anxious thoughts, need only "meditate on CHINTA'HARA, and their cares will be dissipated." The word *Chintá* was, I imagine, pronounced *Xanthus* by the descendants of DARDA'NA'SA, or DARDANUS, who carried into their new settlements not only the name, but some obscure notions relative to the power of the deity CHINTA'HARA: the district of *Troas*, where they settled, was called also *Xanthè*; there was a town *Xanthus* in *Lycia*, and a nation of *Xanthi*, or *Xantii*, in *Thrace*; a river of *Lycia* had that name, and so had another near *Troy*, in the waters of which grew a plant, supposed capable of *dispelling the cares and terrors*, which both *Greeks* and *Indians* believed to be caused by the presence of some invisible deity or evil spirit *. The river *Xanthus*, near *Troy*, was vulgarly called *Scamander*, but its sacred name, used in religious rites, was *Xanthus*; as most rivers in *India* have different names, popular and holy. XANTHUS, according to HOMER, was a son of JUPITER, or, in the language of *Indian* Mythology, an *avántara*, or inferior manifestation, of SIVA: others make him a son of the great TREMILUS †, whom I should suppose to be JUPITER *Tremelius*, or rather *Tremelius*, worshipped at *Biennus* in *Crete*; for the *Tremili*, or *Tremylia*, came originally from that island. According to STEPHANUS of *Byzantium*, the native country of XANTHUS was *Egypt* ‡; and, on the shores of the *Atlantic*, there were monsters shaped like bulls, probably sea-cows, called *Xanthari*. A poet, cited by STEPHANUS, under the word *Tremile*, says, that XANTHUS, son of JUPITER, travelled with his brothers over the whole world, and *did a great deal of mis-*

* Plut. on Rivers, art. *Scamander*.† Steph. Byzant. *Tremile*.‡ See the word *Xanthus*.

chief, that is, according to the *Puránas*, destroyed the insolent CRO'RA'SURA, who was probably revered in the more western countries, where VARA'HE'S'WARA once reigned according to the *Hindus*, and where they believe his posterity still to live in the shape of white *Varábas*, or *Boars*: the legend of the wars between those *Varábas* and the *Sarabhas*, a sort of monster with the face of a lion, and wings like a bird, shall be explained in another essay on *Varába-dwíp*; and I shall only add in this place, that the war was represented, according to HESIOD, on the shield of HERCULES. At present the place, where the temple of AMMON formerly stood, has the name of *Santariab*, which may be derived from some altar anciently dedicated to CHINTA'HARA.

II. We are told in the *Náreda Purán*, that SU'RYA, the regent of the Sun, had chosen a beautiful and well-peopled country in *Sanc'ha-dwíp*, for the purpose of performing his devotions; but that he had no sooner begun, than the whole region was in flames, the waters dried up, and all its inhabitants destroyed; since which it has been denominated *Barbara*. The *Dévatás*, it is added, were in the greatest distress, and VISHNU descended with BRAHMA', to expostulate with the author of the conflagration: SU'RYA praised and worshipped them, but lamented, that his devotion has not prospered, and promised to repair the injuries done by his flames. "It is I, said VISHNU, who must repair them; and, when I shall revisit this country in the character of CRISHNA, to destroy the demon SANC'HA'SURA, the land shall cool and be replenished with plants and animals; the race of *Páli* shall then settle here, with the *Cutila-céfas*, the *Yavanas*, and other *Mlécb'ha* tribes."

In the *Uttara-charitra*, and other ancient books, we find many stories concerning SU'RYA, some of which have a mixture of astrological allegory. Once, it seems, he was performing acts of austere devotion, in the character of TAPANA, or the *Inflamer*, when his consort PRABHA', or *Brightness*, unable to bear his intense heat, assumed the form of CH'HAYA', or *Shade*, and was impregnated by him: after a period of a hundred years, when Gods and men, expecting a terrible offspring, were in the utmost consternation, she was delivered of a male child, in a remote place, afterwards called *Arkist'hán*, or *Saurist'hán*, from *Arci* and *Sauri*, the patronymicks of ARCA and SU'RYA. He was the genius of the planet, which the *Latians* called SATURN, and acquired among the *Hindus* the epithet of SANI, and SANAISCHARA, or *slow-moving*. For twelve years, during his education at *Arci-st'hán*, no rain fell; but a destructive wind blew continually, and the air blazed with tremendous meteors: a dreadful famine ensued, and the *Dévetás*, together with the *Daityas*, im-

plored

explored the protection and advice of SŪRYA, who directed them to propitiate SANI by performing religious rites to VISHNU, near the *Pippal* tree; which is an emblem of him; and assured them, that in future ages the malignant influence of the planet should prevail only during its passage through four signs of the *Ajaviṭ'bi*, or *Zodiac*. The reign of SŪRYA in *Barbara* continued long, but he resigned his dominion to SANI, whose government was tyrannical: all his pious and prudent subjects fled to the hilly countries bordering on the river *Nandā*, while the irreligious and rash perished in the *deserts of burning sand*, to which the baneful eyes of the tyrant reduced all the plains and meadows on which he looked. His father, returning to visit his ancient realm, and seeing the desolation of the whole country, expelled SANI, and sent for another of his sons, named AURVA, who, being appointed successor to his brother, purified the land, recalled the holy men from the hills, and made his subjects happy in ease and abundance, while he resided at *Aurva-sṭ'hān*, so called from his name; but he returned afterwards to *Vabniṣṭ'hān*, the present *Azarbāijūn*, or the *Seat of Fire*, in the interior *Cusṣa-dwīpa*, where he was performing his devotions on *Tris-rīṅga*, or the mountain *with three peaks*, at the time when his father summoned him to the government of *Barbara*. Just before that time he had given a dreadful proof of his power; for ARAMA, *the son of a son of SATYAVRATA* (and consequently the ARAM of Scripture), was hunting in that country with his whole army, near a spot where DURVAŚAS, a cholerick saint, and a supposed *avāntar* of MAHADEVĀ, was sitting rapt in deep meditation: ARAM inadvertently shot an arrow, which wounded the foot of DURVAŚAS, who no sooner opened his eyes, than AURVA sprang from them in the shape of a flame, which consumed ARAM and his party, together with all the animals and vegetables in *Cusṣa-dwīp*. It seems to me, that AURVA is VULCAN, or the God of Fire, *who reigned*, according to the *Egyptian* priests, *after the Sun*, though some have pretended, says DIODORUS, that he had existed before that luminary; as the *Hindus* allege that AGNI, or Fire, had existence in an elementary state before the formation of the Sun, but could not be said to have dominion till its force was concentrated: in another character he is ORUS the Elder, or APOLLO, a name derived, I imagine, from a *Sanscrit* word, implying a power of *dispelling humidity*. No doubt, the whole system of *Egyptian* and *Indian* Mythology must at first view seem strangely inconsistent; but, since all the Gods resolve themselves into one, of whom they were no more than *forms* or *appearances*, it is not wonderful that they should be confounded; especially as every emanation from the Supreme Spirit was believed to send forth collateral emanations, which were blended with

with one another, sometimes recalled, sometimes continued or renewed, and variously reflected or refracted in all directions: another source of confusion is, the infinite variety of legends which were invented from time to time in *Greece, Egypt, Italy, and India*; and, when all the causes of inconsistency are considered, we shall no longer be surpris'd to see the same appellations given to very different deities, and the same deities appearing under different appellations. To give an example in SATURN: the planet of that name is the SANI of *India*, who, says DIODORUS, was considered by the *Chaldeans* as the most powerful of the heavenly bodies, next to the Sun; but his influence was thought baneful, and incantations, with offerings of certain *perfumes*, were used to avert or to mitigate it. When the name is applied to CHRONUS, the Father of the Gods, it means CA'LA, or *Time*, a character both of MAHA'DE'VA and BRAHMA'; but when he is called CRONUS, he seems to be the gigantick CRAUNCHA of the *Hindus*; which the SATURN of *Latium*, and of the Golden Age, appears to be quite a different person, and his title was probably derived from SATYAVERNA, which implies an age of *veracity* and righteousness. BRAHMA with a *red* complexion is worshipped, say the *Puranas*, in the *dwip* of *Pushcara*, which I suppose to be a maritime country at no great distance from *Egypt*: he was there called the first-born of nature, Lord of the Universe, and Father of Deities: and, the Mythology of *Pushcara* having passed into *Greece*, we find CRONUS represented in those characters, but mild and beneficent to the human race, with some features borrowed from the older system, which prevailed on the banks of the *Nile* and the *Ganges*. I cannot help suspecting, that the word *Cála* was the origin of CÆLUS, or *Coilus*, as ENNIUS wrote it; and the ARHAN of the *Jainas*, who was a *form* of MAHA'CA'LA, might originally have been the same with URANUS: as to RHEA, there can be no doubt that she is the Goddess RI, whom the *Hindus* call the Mother of the Gods; but some say, that she also produced malignant beings; and PLINY tells us, that she was the mother of TYPHON, who became sovereign of *Egypt* *, but was deposed and expelled by AVERIS or HORUS; where we have precisely the story of SANI and AURVA. We cannot but observe, that the succession of the Gods in *Egypt*, according to MANETHO, is exactly in the spirit of *Hindu* Mythology, and conformable, indeed, to the *Puranas* themselves; and we may add, before we leave the planets, that, although VRIHASPETI, an ancient legislator and philosopher, be commonly supposed to direct the motions of

* Lib. 2. cap. 25. &c.

Jupiter, which now bears his name, yet many of the *Hindus* acknowledge, that *SIVA*, or the God *JUPITER*, shines in that planet, while the sun is the peculiar station of *VISHNU*, and *SATURN* is directed by *BRAHMA*, whom, for that reason, the *Egyptians* abhorred, not daring even to pronounce his true name, and abominating all animals with red hair, because it was his colour.

There is something very remarkable in the number of years, during which *ARCA* and his son reigned on the banks of the *Cálì*. The Sun, according to the *Bráhmens*, began his devotion immediately after the flood, and continued it a hundred years; *SANI*, they say, was born a hundred years after his conception, and reigned a hundred years, or till the death of *A'RAM*, who must therefore have died about about three hundred years after the deluge, and fifty years before his grandfather; but the *Paúranics* insist, that they were years of *Brabhà*: now one year of mortals is a day and night of the Gods, and 360 of our years is one of theirs; 12,000 of their years, or 4,320,000 of ours, constitute one of their ages, and 2000 such ages are *BRAHMA*'s day and night, which must be multiplied by 360, to make one of his years; so that the chronology of *Egypt*, according to the *Bráhmens*, would be more extravagant than that of the *Egyptians* themselves, according to *MANETHO*. The *Talmud* contains notions of *divine days* and *years*, founded on passages in Scripture ill understood; the period of 12,000 years was *Etruscan*, and that of 4,320,000 was formed in *Chaldea* by repetitions of the *saros*; the *Turdetani*, an old and learned nation in *Spain*, had a long period nearly of the same kind; but for particular inquiries into the ancient periods and the affinity between them, I must refer to other essays, and proceed to the geography of *Egypt*, as it is illustrated by the *Indian* legends.

The place where the Sun is feigned to have performed his acts of religious austerity, is named the *st'hán*, or station, of *ARCA*, *SU'RYA*, and *TAPANA*: as it was on the limit between the *dwípas* of *Cush* and *Sanc'ha*, the *Puráns* ascribed it indifferently to either of those countries. I believe it to be the *Tapbanbés* of Scripture, called *Tapbna*, or *Tapbnai*, by the seventy interpreters, and *Daphne* in the *Roman Itinerary*, where it is placed sixteen miles from *Pelusium*: it is mentioned by *HERODOTUS*, under the name of *Daphnæ Pelusiæ**, and by *STEPHANUS* under that of *Daphne* near *Pelusium*; but the moderns have corrupted the name into *Safnas*.

SAURI-ST'HAN, where *SANI* was born and educated, seems to have been the famed

Beth Shemesb, or *Heliopolis*, which was built, says DIODORUS, by ACTIS, in honour of his father the Sun *; ACTIS first taught astronomy in *Egypt*, and there was a college of astronomers at *Heliopolis*, with an observatory and a temple of the Sun, the magnificence and celebrity of which might have occasioned the change of the ancient name into *Súrya-st'hán*, as it was translated by the *Hebrews* and *Greeks*. It is said by the *Hindus*, that SANI, or ARKI, built several places of worship in the regions adjacent to the *Cáli*; and we still find the town of *Arkico* near the Red Sea, which is not mentioned, indeed, by any of the *Grecian* geographers, but the headland contiguous to it is called by PTOLEMY, the Promontory of SATURN. The genius of SATURN is described in the *Puráns*, as clad in a black mantle, with a dark turban loosely wrapped round his head; his aspect hideous, and his brows knit with anger, a trident in one of his four hands, a cimeter in a second, and, in the two others, a bow and shafts: the priests of SATURN in *Egypt*, where his temples were always out of the towns, are said by EPIPHANIUS, to have worn a dress nearly similar.

To conclude this head, we must add, that the *st'hán* of AURVA is now called *Arfu* by the *Copts* †; but, as AURVA corresponded with ORUS, or APOLLO, the *Greeks* gave it the name of *Apollonopolis*.

III. The metamorphosis of LUNUS into LUNA was occasionally mentioned in the preceding section; but the legend must now be told more at length. The God SO'MA, or CHANDRA, was traversing the earth with his favourite consort RO'HINI; and, arriving at the southern mountain, *Sabyádri*, they unwarily entered the forest of *Gauri*, where some men having surprised MAHA'DE'VA careressing that goddess, had been formerly punished by a change of their sex, and the forest had retained a power of effecting the like change on all males who should enter it. CHANDRA, instantly becoming a female, was so afflicted and ashamed, that she hastened *far to the west*, sending RO'HINI to her seat in the sky, and concealed herself in a mountain, afterwards named *Sóma-giri*, where she performed acts of the most rigorous devotion. Darkness then covered the world each night: the fruits of the earth were destroyed, and the universe was in such dismay, that the *Dévas*, with BRAHMA' at their head, implored the assistance of MAHA'DE'VA, who no sooner placed *Chandri* on his forehead, that she became a male again; and hence he acquired the title of *Cbandras'éc'bara*. This fable has been explained to me by an ingenious *Pandit*: to

* B. 6. c. 13.

† Lett. Edif. vol. 5. p. 257.

the inhabitants of the countries near the source of the *Cáli*, the moon, being in the mansion of *Róbinè*, or the *Hyads*, seemed to vanish behind the southern mountains: now, when the moon is in its opposition to the sun, it is the god *CHANDRA*; but, when in conjunction with it, the goddess *CHANDRI*, who was in that state feigned to have conceived the *Pulindas* mentioned in the former section. The moon is believed by the *Hindu* naturalists to have a powerful influence on vegetation, especially on certain plants, and above all, on the *Sómalatá*, or *moon-plant*; but its power, they say, is greatest at the *púrnimà*, or full, after which it gradually decays till, on the dark *tir'hi*, or *amávásyà*, it wholly vanishes. This mode of interpretation may serve as a clue for the intricate labyrinth of the *Puránas*, which contain all the history, physiology, and science of the *Indians* and *Egyptians* disguised under similar fables. We have already made remarks on the *region* and *mountains* of the moon, which the *Puránas* place in the exterior *Cusha-dwíp*, or the southern parts of *Africa*; and we only add, that the *Pulindas* consider the female moon as a *form* of the celestial *I'si*, or *ISIS*, which may seem to be incompatible with the mythological system of *India*; but the *Hindus* have in truth an *ISIS* with *three forms*, called *SWAR-DE'VI* in heaven, *BHU-DE'VI* on earth, and *PA'TA'LA-DE'VI* in the infernal regions. The consort of the terrestrial goddess is named *BHU'DE'VA*, who resides on *SUME'RU*, and is a vicegerent on earth of the three principal deities: he seems to be the *Bêús* of the *Greek* Mythologists, and the *BUDYAS* of *ARRIAN*; though the *Grecian* writers have generally confounded him with *BUDDHA*.

IV. When this earth was covered with waters, *MAHA'CALA*, who floated on their surface, beheld a company of *Apsaraces*, or *Nymphs*, and expressed with such force his admiration of their beauty, that *MAHA'CALI*, his consort, was greatly incensed and suddenly vanished: the God, stung with remorse, went in search of her, and with hasty strides traversed the earth, which then had risen above the waters of the deluge, as they were dried up or subsided; but the ground gave way under the pressure of his foot at every step, and the balance of the globe was nearly destroyed. In this distress he was seen by the relenting *CA'LI* on the site of *Srirangapattana*; and considering the injury which the universe would sustain by her concealment, she appeared in the character of *RA'JARA'JE'SWARI*, and in the form of a damsel more lovely than *Apsaras*, on the banks of a river since named *Cáli*. There at length he saw and approached her in the character of *RA'JARA'JE'SWARA*, and in the shape of a beautiful youth; they were soon reconciled, and travelled together over the world, promoting the increase of animals and vegetables, and instructing

mankind in agriculture and useful arts. At last they returned to *Cusba-dwíp*, and settled at a place, which from them was named the *St'hán* of RA'JARA'JESWARA and RA'JARA'JESWARI', and which appears to be the *Nysa* of *Arabia*, called *Elim* in Scripture, and *El Tor* by modern geographers; but *Al Túr* belongs properly to the interior *dwíp* of *Cusba*: they resided long in that station conversing familiarly with men, till the iniquities of later generations compelled them to disappear; and they have since been worshipped under the titles of ISANA, or ISA, and ISA'NI, or ISI.

Since the goddess Isis made her first appearance in *Egypt*, that country is called her *nursing mother* in an inscription mentioned by DIODORUS, and said to have been found on a pillar in *Arabia*: she was reported by the *Egyptians* to have been *Queen* of that country, and is declared in the *Puráns* to have reigned over *Cusba-dwíp* within, as her consort has the title, in the *Arabian* inscription, of King OSIRIS; conformably, in both instances, to the characters under which they appeared on the banks of the *Nile*. The place where ISI was first visible, became of course an object of worship; but, as it is not particularly noticed by the Mythologists of the west, we cannot precisely ascertain its situation: it was probably one of the places in the Delta, each of which was denominated ISEUM; and I think it was the town of ISI, near *Sebennytus**, now called *Bha-beit*, where the ruins of a magnificent temple, dedicated to ISI, are still to be seen. As YSIRIS came from the western peninsula of *India*, he was considered in *Egypt* as a foreign divinity, and his temples were built out of the towns.

V. BHAVA, the author of *existence*, and consort of AMBA', the *Magna Mater* of the western Mythologists, had resolved to set mankind an example of performing religious austerities, and chose for that purpose an *Aranya*, or *uninhabited forest*, on the banks of the *Nile*; but AMBA', named also BHAVA'NI' and UMA', being uneasy at his absence, and guessing the place of his retirement, assumed the character of ARANYA-DE'VI', or Goddess of the Forest, and appeared sporting among the trees at a place called afterwards *Cámovana*, or the Wood of Desire, from the impression which her appearance there made on the amorous deity: they retired into an *Atavi*, or impervious forest, whence the Goddess acquired also the title of ATAVI'-DE'VI, and the scene of their mutual caresses had the name of *Bhavátavi-st'hána*, which is mentioned in the *Védas*. The place of their subsequent residence near the *Nile* was

* Tab. Peutinger. Plin. Steph. Byzantium.

denominated *Crirávana*, or the Grove of Dalliance; and that, where BHAVA was interrupted in his devotions, was at first called *Bhavaśb'án*, and seems to be the celebrated *Bubastos*, or, in the oblique case, *Bubaston*, peculiarly sacred to DIANA, the Goddess of Woods: from *Bhavátavi*, which was at some distance from the Nile, in the midst of an impervious forest, the Greeks made *Butoi* in the oblique case, whence they formed *Buto* and *Butús*; and there also stood a famous temple of DIANA. The situation of *Crirávana* cannot be so easily ascertained; but it could not have been far from the two last-mentioned places, and was probably in the Delta, where we find a most distinguished temple of VENUS at *Aphroditopolis**, now *Atar-bekhi*, which, according to STEPHANUS of *Byzantium*, was at no great distance from *Atribi*: the goddess had, indeed, laid aside the character of DIANA, when BHAVA perceived her, and assumed that of BHAVA'NI, or VENUS. The three places of worship here mentioned were afterwards continually visited by numerous pilgrims, whom the *Bráhmánda-purán*, from which the whole fable is extracted, pronounces entitled to delight and happiness both in this world and the next.

BHAVE'SWARA seems to be the BUSIRIS of *Egypt*; for STRABO asserts, positively, that no *Egyptian* king bore that name, though altars, on which men were anciently sacrificed, were dedicated to BUSIRIS, and the human victims of the *Hindus* were offered to the consort of BHAVE'SWARA. The *Naramédha*, or sacrifice of a man, is allowed by some ancient authorities; but since it is prohibited under pain of the severest torture in the next world, by the writers of the *Bráhma*, of the *A'ditya-purán*, and even of the *Bhágavat* itself, we cannot imagine that any *Bráhmén* would now officiate at so horrid a ceremony; though it is asserted by some, that the *Pámaras*, or *Pariar* nations, in different parts of *India*, disregard the prohibition, and that the *Carbaras*, who were allowed by PARAS'U RA'MA to settle in the *Cóncan*, to sacrifice a man in the course of every generation, to appease the wrath of RE'NUCA'-DE'VI'.

Before we quit the subject of *Atavi*, we must add two legends from the *Bráhmánda*, which clearly relate to *Egypt*. A just and brave king, who reigned on the borders of *Himálaya*, or *Imaus*, travelled over the world to destroy the robbers who then infested it; and as he usually surprised them by night, he was surnamed NAC-TAMCHARA; to his son NIS'A'CHARA, whose name had the same signification, he

* Herod. B. 2. c. 42.

gave the kingdom of *Barbara* near the Golden Mountains, above *Syene*; and *NISACHARA* followed at first the example of his father, but at length grew so insolent as to contend with *INDRA*, and oppressed both *Dévas* and *Dánavas*, who had recourse to *ATAVI'-DE'VI'*, and solicited her protection. The goddesses advised them to lie for a time concealed in *Swerga*, by which we must here understand the *mountains*; and, when the tyrant rashly attempted to drive her from the banks of the *Nile*, she attacked and slew him: the *Dévas* then returned singing her praises; and on the spot where she fought with *NISACHARA*, they raised a temple, probably a pyramid, which from her was called *Atavi-mandira*. Two towns in *Egypt* are still known to the *Copts* by the names of *Atfi*, *Atsieh*, and *Itfu*; and to both of them the *Greeks* gave that of *Aphroditopolis*; the district round the most northerly of them is to this day named *Ibrit*, which *M. D'ANVILLE*, with good reason, thinks a corruption of *APHRODITE*; but *Atavi-mandir* is *Atfi* to the south of *Alkábirah*, not the *Atfi* or *Itfu* near *Thebes*, which also is mentioned in the *Puránas*, and said to have stood in the forests of *Tapas*.

Another title of the Goddesses was *ASHTA'RA'*, which she derived from the following adventure. *VIJAYA'SWA*, or *victorious on horseback*, was a virtuous and powerful king of the country round the *Nishadha* mountains; but his first minister having revolted from him, collected an army of *Mléch'has* in the hills of *Gandha mádan*, whence he descended in force, gave battle to his master, took him prisoner, and usurped the dominion of his country. The royal captive having found means to escape, repaired to the banks of the *Cálí*, and fixing eight sharp iron spikes in a circle at equal distances, placed himself in the centre, prepared for death, and resolved to perform the most rigorous acts of devotion. Within that circle he remained a whole year, at the close of which the Goddesses appeared to him, issuing like a flame from the eight iron points; and presenting him with a weapon, called *Astára-mudgara*, or a staff armed with eight spikes fixed in an iron ball, she assured him, that all men who should see that staff in his hand, must either save themselves by precipitate flight, or would fall dead and mangled on the ground. The king received the weapon with confidence, soon defeated the usurper, and erected a pyramid in honour of the goddesses, by the name of *ASHTA'RA-DE'VI'*: the writer of the *Purána* places it near the *Cálí* river in the woods of *Tapas*: and adds, that all such as visit it, will receive assistance from the goddesses for a whole year. *Ashta* means *eight*, and the word *dra*, properly signifies the *spoke of a wheel*, yet is applied to any thing resembling it; but in the popular *Indian* dialects, *ashta* is pronounced *átt*; and the

the appearance, which STRABO mentions, of the goddess APHRODITE under the name of ATTARA, must, I think, be the same with that of ASHTA'RA: the *Ash-taroth* of the *Hebrews*, and the old *Persian* word *astárah*, now written *sitárah* (or a *star with eight rays*), are most probably derived from the two *Sanscrit* words. Though the place where VIJAYA'SWA raised his pyramid, or temple, was named *Ash-tarást'hán*, yet, as the goddess to whom he inscribed it, was no other than ATAVI'-dēvi, it has retained among the *Copts* the appellation of *Atfi*, or *Atfu*, and was called *Aphroditopolis* by the *Greeks*: it is below *Akkmim* on the western bank of the *Nile*.

VI. Among the legends concerning the transformation of DE'VI, Φύσις πολύμορφος we find a wild astronomical tale in the *Násatya Sanbità*, or history of the *Indian* CASTOR and POLLUX. In one of her *forms*, it seems she appeared as PRABHA', or Light, and assumed the shape of *Aswiní*, or a *Mare*, which is the first of the lunar mansions: the Sun approached her in the form of a *horse*, and he no sooner had touched her nostrils with his, than she conceived *the twins*, who, after their birth, were called *Aswiní-cumárau*, or the *two sons* of ASWINÍ. Being left by their parents, who knew their destiny, they were adopted by BRAHMA', who intrusted them to the care of his son DACSHA; and, under that sage preceptor, they learned the whole *Ayurvēda*, or system of medicine: in their early age they travelled over the world performing wonderful cures on gods and men; and they are generally painted on horseback, in the forms of beautiful youths, armed with javelins. At first they resided on the *Cula* mountains near *Colchis*; but INDRA, whom they had instructed in the science of healing, gave them a station in *Egypt* near the river *Cásh*, and their new abode was from them called *Aswist'hán*: as medicated baths were among their most powerful remedies, we find near their seat a pool, named *Abhimatada*, or *granting what is desired*, and a place called *Rúpa-yauvana-st'hala*, or the *land of beauty and youth*. According to some authorities, one of them had the name of 'ASWIN, and the other of CUMAR, one of NA'SATYA, the other of DASRA; but, by the better opinion, those appellations are to be used in the dual number, and applied to them both: they are also called ASWANA'SAU, or ASWACANA'SAU, because their mother conceived them by her *nostrils*; but they are considered as united so intimately, that *each seems either*, and they are often held to be one individual deity. As twin-brothers, the two DASRAS, or CUMARAS, are evidently the *Dioscori* of the *Greeks*; but, when represented as an individual, they seem to be ÆSCULAPIUS, which my *Pandit* supposes to be ASWICULAPA, or *Chief of the*

the race of *Aswi*: that epithet might, indeed, be applied to the Sun; and *ÆSCULAPIUS*, according to some of the western Mythologists, was a form of the Sun himself. The adoption of the twins by *BRAHMA*, whose favourite bird was the phoenix, which the *Europeans* changed into a swan, may have given rise to the fable of *LEDA*; but we cannot wonder at the many diversities in the old mythological system, when we find in the *Purânas* themselves very different genealogies of the same divinity, and very different accounts of the same adventure.

ÆSCULAPIUS, or *ASCLEPIUS*, was a son of *APOLLO*, and his mother, according to the *Phenicians*, was a goddess, that is, a form of *DEVÎ*: he too was abandoned by his parents, and educated by *AUTOLAUS*, the son of *ARCAS* *. The *Aswiculapas*, or *Asclepiades*, had extensive settlements in *Thessaly* †, and, I believe, in *Mes-senia*. The word *Aswinî*, seems to have given a name to the town of *Asphynis*, now *Asfun*, in Upper *Egypt*; for *Aswa*, a horse, is undubitably changed by the *Persians* into *Asb*, or *Asp*; but *Aswi-st'bán* was probably the town of *Abydus* in the *Thebais*; and might have been so named from *Abbida*, a contraction of *Abhimatada*; for *STRABO* informs us, that it was anciently a very large city, the second in *Egypt* after *Thebes*; that it stood about seven miles and a half to the west of the *Nile*; that a celebrated temple of *OSIRIS* was near it, and a magnificent edifice in it, called the palace of *MEMNON*; that it was famed also for a well, or pool of water, with winding steps all round it; that the structure and workmanship of the reservoir were very singular, the stones used in it of an astonishing magnitude, and the sculpture on them excellent ‡. *HERODOTUS* insists, that the names of the *DIOSCURI* were unknown to the *Egyptians*; but, since it is positively asserted in the *Purânas*, that they were venerated on the banks of the *Nile*, they must have been revered, I presume, in *Egypt* under other names: indeed, *HARPOCRATES* and *HALITOMENION*, the twin-sons of *OSIRIS* and *ISIS*, greatly resemble the *DIOSCURI* of the *Grecian* Mythologists.

VII. Before we enter on the next legend, I must premise, that *îda* pronounced *îra*, is the root of a *San-scrit* verb, signifying *praise*, and synonymous with *îla*, which oftener occurs in the *Vêda*: the *Rigvêda* begins with the phrase *Agnim îlé*, or *I sing praise to fire*. *VISHNU* then had two warders of his ethereal palace, named *JAYA* and *VIJAYA*, who carried the pride of office to such a length, that they insulted the seven *Maharshis*, who had come, with *SANACA* at their head, to present their

* Pausan. B. 6. c. 23.

† Pausan. B. 8. c. 25.

‡ Strabo, B. 9. p. 434. 438.

adorations; but the offended *Rishis* pronounced an imprecation on the insolent warders, condemning them to be *adbhóyóni*, or *born below*, and to pass through three mortal forms before they could be re-admitted to the divine presence: in consequence of this execration, they first appeared on earth as HIRANYA'CSHA, or *Golden-eyed*; and HIRANYACASIPU, or *Clad in Gold*; secondly, as RAVA'NA and CUMBHACARNA; and, lastly, as CANSA and SIS'UPA'LA.

In their first appearance, they were the twin-sons of CASYAPA and DITI: before their birth the body of their mother blazed like the sun, and the *Dévatás*, unable to bear its excessive heat and *light*, retired to the banks of the *Cálí*, resolving to lie concealed till she was delivered; but the term of her gestation was so long, and her labour so difficult, that they remained a thousand years near the holy river employed in acts of devotion. At length DE'VI' appeared to them in a new character, and had afterwards the title of I'DÍTA, or I'LITA', because she was *praised* by the Gods in their hymns, when they implored her assistance in the delivery of DITI: she granted their request, and the two *Daityas* were born; after which I'LITA'-DE'VI assured mankind, that any woman who should fervently invoke her in a similar situation, should have immediate relief. The *Dévas* erected a temple in the place where she made herself visible to them, and it was named the *śt'hán* of IDITA' or I'LITA'; which was probably the town of *Idithya* or *Ilithya* in Upper Egypt; where sacred rites were performed to EITITHYA, or ELEUTHO, the LUCINA of the *Latians*, who assisted women in labour: it stood close to the *Nile*, opposite to Great *Apollonopolis*, and seems to be *Leucothea* of PLINY. This goddess is now invoked in *India* by women in child-bed, and a burnt offering of certain perfumes is appropriated to the occasion.

VIII. We read in the *Mabad-bimálaya-c'han'da*, that, after a deluge, from which very few of the human race were preserved, men became ignorant and brutal, without arts or sciences, and even without a regular language; that part of *Sanc'ha-dwíp* in particular, was inhabited by various tribes who were perpetually disputing; but that ISWARA descended among them, appeased their animosities, and formed them into a community of citizens, *mixed* without invidious distinctions; whence the place where he appeared, was denominated *Misra-śt'hán*; that he sent his consort VA'GE'SWARI', or the Goddess of Speech, to instruct the rising generations in arts and languages; for which purpose she also visited the *dwíp* of CUSHA. Now the ancient city of MISRA was *Memphis*; and, when the seat of government was transferred to the opposite side of the river, the new city had likewise the name of *Misr*, which

which it still retains; for *Alkábirah*, or the Conqueress, vulgarly *Cairo*, is merely an *Arabick* epithet.

VA'GÍ'SWARA, or VA'GÍ'SA', commonly pronounced BA'GÍ'SWAR and BA'GÍ'S, means the Lord of *Speech*; but I have seen only one temple dedicated to a god with that title: it stands at *Gangápur*, formerly *Dehterea*, near *Banáres*, and appears to be very ancient: the image of VA'GÍ'SWARA, by the name of SIRO'DÉVA, was brought from the west by a grandson of CE'TU-MISRA descended from GAUTAMA, together with that of the God's consort and sister, vulgarly named BASSARI; but the *Bráhmens* on the spot informed me, that her true name was BA'GÍ'SWARI'. The precise meaning of SIRO'DÉVA is not ascertained: if it be not a corruption of SRI'DÉVA, it means the God of the *Head*; but the generality of *Bráhmens* have a singular dislike to the descendants of GAUTAMA, and object to their modes of worship, which seem, indeed, not purely *Indian*. The priests of BA'GÍ'SWARA, for instance, offer to his consort a lower mantle with a red fringe, and an earthen pot shaped like a coronet: to the god himself they present a vase full of arak; and they even sacrifice a hog to him, pouring its blood before the idol, and restoring the carcase to its owner; a ceremony which the *Egyptians* performed in honour of BACCHUS OSIRIS, whom I suppose to be the same deity, as I believe the *Bassarides* to have been so named from *Bassari*. Several demigods (of whom CICERO reckons five *), had the name of BACCHUS; and it is not improbable, that some confusion has been caused by the resemblance of names: thus BA'GÍ'SWARA was changed by the *Greeks* into BACCHUS OSIRIS; and, when they introduced a foreign name with the termination of a case in their own tongue, they formed a nominative from it; hence from BHAGAWA'N also they first made BACCHON, and afterwards BACCHOS; and, partly from that strange carelessness conspicuous in all their inquiries, partly from the reserve of the *Egyptian* priests, they melted the three divinities of *Egypt* and *India* into one, whom they miscalled OSIRIS. We have already observed, that YSIRIS was the true pronunciation of that name, according to HELANICUS; though PLUTARCH insists, that it should be SIRIS or SIRIUS: but YSIRIS, or ISWARA, seems in general appropriated to the incarnations of MAHA'DÉVA, while SIRIS or SIRIUS was applied to those of VISHNU.

IX. When the *Pándavas*, according to the *Vrīhad-baima*, wandered over the world, they came to the banks of the *Cālī* river in *Sanc'ba-dwīp*, where they saw a

* De Nat. Deor.

three-eyed man sitting with kingly state, surrounded by his people and by animals of all sorts, whom he was instructing in several arts according to their capacities: to his human subjects he was teaching agriculture, elocution, and writing. The descendants of PANDU having been kindly received by him, related their adventures at his request; and he told them in return, that, having quarrelled in the mansion of BRAHMA with DACSHA his father-in-law, he was cursed by MENU, and doomed to take the form of a *Mánava*, or *man*, whence he was named on earth 'AMANESWARA'; that his faithful consort transformed herself into the river *Cáli*, and purified his people, while he guided them with the staff of empire, and gave them instruction, of which he found them in great need. The place where he resided was called *Amanéswara-s'bán*, or the seat of A'MAN or A'MON, which can be no other than the *Amonno* of Scripture, translated *Diospolis* by the Seventy interpreters; but it was *Diospolis*, between the canals of the Delta, near the sea and the lake *Manzale*, for the Prophet NAHUM * describes it as a town *situated among rivers, with waters round about it, and the sea for its ramparts*; so that it could not be either of the towns, named also *Diospolis*, in Upper Egypt; and the *Hindu* author says expressly, that it lay to the north of *Himádri*.

Having before declared my opinion, that the *Noph* of the three greater Prophets was derived from *Nabhas*, or the sky, and was properly called *Nabha-iswara-s'bán*, *Nabha-s'bán*, I have little to add here: HOSEA once calls it *Moph* †, and the *Chaldean* paraphrast, *Maphes*; while Rabbi KIMCHI asserts, that *Moph* and *Noph* were one and the same town: the Seventy always render it *Memphis*, which *Copts* and *Arabs* pronounce *Menuf* or *Menf*; and, though I am well aware, that some travellers and men of learning deny the modern *Menf* to be on the site of *Memphis*, yet, in the former section, I have given my reasons for dissenting from them, and observed, that *Memphis* occupied a vast extent of ground along the *Nile*, consisting in fact of several towns or divisions, which had become contiguous by the accession of new buildings. May not the words *Noph* and *Menf* have been taken from *Nabha* and *Mánava*, since *Nabhómánava*, as a title of ISWARA, would signify the *celestial man*? The *Egyptian* priests had nearly the same story, which we find in the *Puráns*; for they related, that the ocean formerly reached to the spot where *Memphis* was built by king MINES, MINAS, and MINEVAS, who forced the sea back by altering the

* Ch. 3. v. 8.

† Ch. 9. v. 6.

course of the *Nile*, which, depositing its mud in immense quantities, gradually formed the *Delta*.

DIOSPOLIS, distinguished by the epithet *great*, was a name of *Thebes*, which was also called the City of the Sun *, from a celebrated temple dedicated to that luminary, which I suppose to be *Súryéswara-st'hán* of the old *Hindu* writers: the following legend concerning it is extracted from the *Bháscara-mábátmya*. The son of SO'MARA'JA, named PUSHACE'TU, having inherited the dominions of his father, neglected his public duties, contemned the advice of his ministers, and abandoned himself to voluptuousness; till BHÍ'MA, son of PA'MARA (or of an *outcast*), descended from the hills of *Niládri*, and laid siege to his metropolis: the prince, unable to defend it, made his escape, and retired to a wood on the banks of the *Cálí*. There, having bathed in the sacred river, he performed penance for his former dissolute life, standing twelve days on one leg, without even tasting water, and with his eyes fixed on the Sun; the regent of which appeared to him in the character of SU'RYE'SWARA, commanding him to declare what he most desired. "Grant me *mócsa*, or beatitude," said PUSHACE'TU, prostrating himself before the deity; who bade him be patient, assured him that his offences were expiated, and promised to destroy his enemies with intense heat, but ordered him to raise a temple, inscribed to SU'RYE'SWARA, on the very spot where he then stood, and declared, that he would efface the sins of all such pilgrims as should visit it with devotion: he also directed his votary, who became, after his restoration, a virtuous and fortunate monarch, to celebrate a yearly festival in honour of SU'RYA on the seventh lunar day in the bright half of *Mágha*. We need only add, that *Heliopolis* in lower *Egypt*, though a literal translation of *Súrya-st'hán*, could not be the same place, as it was not on the banks of the *Nile*.

X. One of the wildest fictions, ever invented by Mythologists, is told in the *Pádma* and the *Bhágavat*; yet we find an *Egyptian* tale very similar to it. The wife of CA'S'YA, who had been the *guru*, or spiritual guide, of CRISHNA, complained to the incarnate God, that the ocean had swallowed up her children near the plain of *Prabbása*, or the western coast of *Gurjara*; now called *Gujarat*; and she supplicated him to recover them. CRISHNA hastened to the shore, and, being informed by the sea-god that SANC'HA'SURA, or PAN'CHAJANYA, had carried away

* Diod. Sic. B. 2. c. 1.

the children of his preceptor, he plunged into the waves, and soon arrived at *Cusba-dwîp*, where he instructed the *Cutila-céfas* in the whole system of religious and civil duties, cooled and embellished the peninsula, which he found smoking from the various conflagrations which had happened to it, and placed the government of the country on a secure and permanent basis: he then disappeared; and having discovered the haunt of *SANC'HASURA*, engaged and slew him, after a long conflict, during which the ocean was violently agitated, and the land overflowed; but, not finding the *Bráhmén's* children, he tore the monster from his shell, which he carried with him as a memorial of his victory, and used afterwards in battle by way of a trumpet. As he was proceeding to *Varába-dwîp*, or *Europe*, he was met by *VARUNA*, the chief God of the Waters, who assured him positively, that the children of *CA'SYA* were not in his domains: the preserving power then descended to *Yamapuri*, the infernal city, and, founding the shell *Páncabajanya*, struck such terror into *YAMA*, that he ran forth to make his prostrations, and restored the children, with whom *CRISHNA* returned to their mother.

Now it is related by *PLUTARCH* *, that *GARMATHONE*, queen of *Egypt*, having lost her son, prayed fervently to *ISIS*, on whose intercession *OSIRIS* descended to the shades and restored the prince to life; in which fable *OSIRIS* appears to be *CRISHNA*, the *black* divinity: *Garmatho*, or *Garbatbo*, was the name of a hilly district, bordering on the land of the *Troglodytes*, or *Sanc'básuras*; and *Ethiopia* was in former ages called *Egypt*. The flood in that country is mentioned by *CEDRE-NUS*, and said to have happened fifty years after *CECROPS*, the first king of *Athens*, had begun his reign: *Abyssinia* was laid waste by a flood, according to the Chronicle of *Axum*, about 1600 years before the birth of *CHRIST* †; and *CECROPS*, we are told, began to reign 1657 years before that Epoch; but it must be confessed, that the chronology of ancient *Greece* is extremely uncertain.

XI. Having before alluded to the legends of *GUPTA* and *CARDAMA*, we shall here set them down more at large, as they are told in the *Puránas*, entitled *Brab-mánda* and *Scanda*, the second of which contains very valuable matter concerning *Egypt* and other countries in the west. *SURYA* having directed both Gods and men to perform sacred rites in honour of *VISHNU*, for the purpose of counteracting the baneful influence of *SANI*, they all followed his directions, except *MAHA'DÉVA*, who thought such homage inconsistent with his exalted character; yet he found it

* On Rivers, *art.* Nile.

† Bruce's Travels, Vol. I. 398.

necessary to lie for a time *concealed*, and retired to *Barbara* in *Sanc'ba-dwip*, where he remained seven years *hidden* in the *mud*, which covered the banks of the *Cáli*: hence he acquired the title of GUPTESWARA. The whole world felt the loss of his vivifying power, which would long have been suspended, if MANDAPA, the son of CUSHMANDA, had not fled, to avoid the punishment of his vices and crimes, into *Cusba-dwip*; where he became a sincere penitent, and wholly devoted himself to the worship of MAHADEV'A, constantly singing his praise, and dancing in honour of him: the people, ignorant of his former dissolute life, took him for a holy man, and loaded him with gifts, till he became a chief among the votaries of the *concealed* God, and at length formed a design of restoring him to light. With this view he passed a whole night in *Cardama-s'bán*, chanting hymns to the mighty power of destruction and renovation, who, pleased with his piety and his musick, started from the *mud*, whence he was named CARDAMESWARA, and appeared openly on earth; but having afterwards met SAN AISCHARA, who scornfully exulted on his own power, in *compelling the Lord of three Worlds to conceal himself in a fen*, he was abashed by the taunt, and ascended to his palace on the top of *Cailása*.

Gupteswara-s'than, abbreviated into *Gupta*, on the banks of the *Nile*, is the famed town *Coptos*, called *Gupt* or *Gypt* to this day, though the *Arabs*, as usual, have substituted their *káf* for the true initial letter of that ancient word: I am even informed, that the land of *Egypt* is distinguished in some of the *Puránas* by the name of *Gupta-s'bán*; and I cannot doubt the information, though the original passages have not yet been produced to me. Near *Gupta* was *Cardamast'hali*, which I suppose to be *Thebes*, or part of it; and CADMUS, whose birth-place it was, I conceive to be ISWARA, with the title CARDAMA; who invented the *system of letters*, or at least arranged them as they appear in the *Sanscrit* grammars: the *Greeks*, indeed, confounded CARDAMESWARA with CARDAMA, father of VARUNA, who lived on the coast of *Asia*; whence CADMUS is by some called an *Egyptian*, and, by others, a *Phenician*; but it must be allowed, that the writers of the *Puránas* also have caused infinite confusion, by telling the same story in many different ways; and the two CARDAMAS may, perhaps, be one and the same personage.

“ CADMUS was born (says DIODORUS *) at *Thebes* in *Egypt*: he had several sons, and a daughter named SEMELE, who became pregnant, and, in the *seventh* month, brought forth an imperfect male child, greatly resembling OSIRIS; whence

* B. I. c. 13.

“the *Greeks* believed, that OSIRIS was the son of CADMUS and SEMELE.” Now I cannot help believing, that OSIRIS of *Thebes* was ISWARA springing, after his concealment for *seven* years, from the mud (*Cardama*) of the river *Syámala*, which is a *Pauranic* name for the *Nile*: whatever might have been the grounds of so strange a legend, it probably gave rise to the popular *Egyptian* belief, that the human race were produced from the mud of that river; since the appearance of CARDAME-SWARA revived nature, and replenished the earth with plants and animals.

XII. The next legend is yet stranger, but not more absurd than a story, which we shall find among the *Egyptians*, and which in part resembles it. MAHA'DE'VA and PARVATI' were playing with dice at the ancient game of *Chaturanga*, when they disputed and parted in wrath; the goddess retiring to the forest of *Gauri*, and the god repairing to *Cushta-dwîp*: they severally performed rigid acts of devotion to the Supreme Being; but the fires which they kindled blazed so vehemently, as to threaten a general conflagration. The *Dévas* in great alarm hastened to BRAHMA', who led them to MAHA'DE'VA, and supplicated him to recal his consort; but the wrathful deity only answered, that she must come by her own free choice: they accordingly dispatched GANGA', the river goddess, who prevailed on PARVATI' to return to him on condition that his love for her should be restored. The celestial mediators then employed CA'MA-DE'VA, who wounded SIVA with one of his flowery arrows; but the angry divinity reduced him to ashes with a flame from his eye: PARVATI' soon after presented herself before him in the form of a *Cirati*, or daughter of a mountaineer, and seeing him enamoured of her, resumed her own shape. In the place where they were reconciled a grove sprang up, which was named *Cá-mavana*; and the relenting god, in the character of CA'ME'SWARA, consoled the afflicted RETI, the widow of CA'MA, by assuring her that she should rejoin her husband, when he should be born again in the form of PRADYUMNA, son of CRISHNA, and should put SAMBARA to death. This favourable prediction was in due time accomplished; and PRADYUMNA having sprung to life, he was instantly seized by the demon SAMBARA, who placed him in a chest, which he threw into the ocean; but a large fish which had swallowed the chest, was caught in a net, and carried to the palace of a tyrant, where the unfortunate RETI had been compelled to do menial service: it was her lot to open the fish, and seeing an infant in the chest, she nursed him in private, and educated him till he had sufficient strength to destroy the malignant SAMBARA. He had before considered RETI as his *mother*; but the minds of them both being irradiated, the prophecy of MAHA'DE'VA was remembered,

membered, and the god of Love was again united with the goddess of Pleasure. One of his names was PUSHADHANVA, or *with a flowery bow*; and he had a son VISVADHANVA, from whom VIJAYADHANVA, and CIRTIDHANVA lineally sprang; but the two last, with whom the race ended, were surnamed CAUN'APA, for a reason which presently shall be disclosed.

VISVADHANVA, with his youthful companions, was hunting on the skirts of HIMA'LAYA, where he saw a white elephant of an amazing size, with four tusks, who was disporting himself with his females: the prince imagined him to be AIRA'VATA, the great elephant of INDRA, and ordered a circle to be formed round him; but the noble beast broke through the toils, and the hunters pursued him from country to country, till they came to the burning sands of *Barbara*, where his course was so much impeded, that he assumed his true shape of a *Rácsbasa*, and began to bellow with the sound of a large drum, called *dundu*, from which he had acquired the name of DUNDUBHI. The son of CAMA, instead of being dismayed, attacked the giant, and, after an obstinate combat, slew him; but was astonished on seeing a beautiful youth rise from the bleeding body, with the countenance and form of a *Gandharva*, or celestial quirister, who told him, before he vanished, that "he had been expelled for a time from the heavenly mansions, and, as a punishment for a great offence, had been condemned to pass through a mortal state in the shape of a giant, with a power to take other forms; that his crime was expiated by death, but that the prince deserved, and would receive, chastisement, for molesting an elephant, who was enjoying innocent pleasures." The place where the white elephant resumed the shape of a *Rácsbasa*, was called *Rácsbasa-si'bán*; and that where he was killed, *Dandubbi-mára-si'bán*, or *Rácsbasa-mócsbana*, because he there acquired *mócsba*, or a release from his mortal body: it is declared in the *Uttara-charitra*, that a pilgrimage to those places, with the performance of certain holy rites, will ever secure the pilgrims from the dread of giants and evil spirits.

CANTACA, the younger brother of DUNDUBHI, meditated vengeance, and assuming the character of a *Bráhmén*, procured an introduction to VISVADHANVA as a person eminently skilled in the art of cookery: he was accordingly appointed chief cook, and, a number of *Bráhméns* having been invited to a solemn entertainment, he stewed a *cun'apa* or *corpse* (some say *putrid fish*), and gave it in soup to the guests; who, discovering the abominable affront, were enraged at the king, telling him, that he should live twelve years as a night-wanderer feeding on *cun'apas*, and that *Caun'apa* should be the surname of his descendants: some add, that as soon as this

this curse was pronounced, the body of VISVADHANWA became festering and ulcerous, and that his children inherited the loathsome disease.

We find clear traces of this wild story in *Egypt*; which from CA'MA was formerly named *Chemia*, and it is to this day known by the name of *Chemi*, to the few old *Egyptian* families that remain: it has been conjectured, that the more modern *Greeks* formed the word *Chemia* from this name of *Egypt*, whence they derived their first knowledge of *Chemistry*. The God CAIMIS was the same, according to PLUTARCH, with ORUS the Elder, or one of the ancient APOLLOS; but he is described as very young and beautiful, and his consort was named RHYTIA; so that he bears a strong resemblance to CA'MA, the husband of RETI, or the CUPID of the *Hindus*: there were two Gods named *Cupid*, says ÆLIAN *, the elder of whom was the son of LUCINA, and the lover, if not the husband, of VENUS: the younger was her son. Now SMU or TYPHON, says HERODOTUS, wished to destroy ORUS, whom LATONA concealed in a grove of the island *Chemmis*, in a lake near *Butus*: but SMU, or SAMBAR, found means to kill him, and left him in the waters, where ISIS found him and restored him to life †. ÆLIAN says, that the Sun, a form of OSIRIS, being displeased with CUPID, threw him into the ocean, and gave him a shell for his abode: SMU, we are told, was at length defeated and killed by ORUS. We have said, that CA'MA was born again in this lower world, or became *Adháyóni*, not as a punishment for his offence, which that word commonly implies, but as a mitigation of the chastisement which he had received from ISWARA, and as a favour conferred on him in becoming a son of VISHNU: this may, therefore, be the origin both of the name and the story of ADONIS; and the yearly lamentations of the *Syrian* damsels may have taken rise from the ditties chanted by RETI, together with the *Apсарases*, or nymphs, who had attended CA'MA, when he provoked the wrath of MAHA'DE'VA: one of the sweetest measures in *Sanscrit* prosody has the name of *Reti vilāpa*, or the *dirge* of RETI.

In the only remaining accounts of *Egyptian* Mythology, we find three kings of that country, named CAMEPHIS, which means in *Coptick*, according to JABLONSKI, the guardian divinity of *Egypt* ‡: the history of those kings is very obscure; and whether they have any relation to the three descendants of CA'MA, I cannot pretend to determine. The *Caunapas* appear to be the Νέκυες, ήμίθεοι supposed to have reigned in *Egypt*; for we learn from SYNCELLUS ||, that the *Egyptians* had a strange:

* B. 14. c. 28.

† Diod. Sic. B. 14.

‡ See Alphab. Tibet. p. 145.

|| P. 40, cited by Mr. BRYANT.

tale concerning a dynasty of *dead men*; that is, according to the *Hindus*, of men afflicted with some sphacelous disorder, and most probably, with *Elephantiasis*. The seat of CUNAPA seems to have been *Canobus*, or *Canopus*, not far from *Alexandria*: that CANOPUS died there of a loathsome disease, was asserted by the *Greek Mythologists*, according to the writer of the *Great Etymological Dictionary* under the word ΕΛΕΥΘΕΙΟΝ; and he is generally represented in a black shroud, with a cap closely fitted to his head, as if his dress was intended to conceal some offensive malady; whence the potters of *Canopus* often made pitchers with covers in the form of a close cap. His tomb was to be seen at *Helenium*, near the town which bore his name; but that of his wife (who, according to EPIPHANIUS, was named CUMENUTHIS) was in a place called *Menuthis*, at the distance of two stadia. There were two temples at *Canopus*; the more ancient inscribed to HERCULES, which stood in the suburbs *, and the more modern, but of greater celebrity, raised in honour of SERAPIS †. Now there seems to be no small affinity between the characters of DUNDHU and ANTÆUS; of VISVADHANWA and HERCULES; many heroes of antiquity (CICERO reckons up *six*, and others *forty-three*, some of whom were peculiar to *Egypt*) had the title of HERCULES; and the *Greeks*, after their fashion, ascribed to one the mighty achievements of them all. ANTÆUS was, like DUNDHU, a favourite servant of OSIRIS, who intrusted part of *Egypt* to his government; but, having in some respect misbehaved, he was deposed, absconded, and was hunted by HERCULES, through every corner of *Africa*: hence I conclude, that *Dandhu-mara-si'hân* was the town called *Anteu* by the *Egyptians*, and *Antæopolis* by the *Greeks*, where a temple was raised and sacrifices made to ANTÆUS, in hope of obtaining protection against other demons and giants. *Râcshasa-si'hân* seems to be the *Rhacotis* of the *Greeks*, which CEDRENIUS calls in the oblique case *Rhakkástên*: it stood on the site of the present *Alexandria*, and must in former ages have been a place of considerable note; for PLINY tells us, that an old king of *Egypt*, named MESPHEES, had erected two obelisks in it, and that some older kings of that country had built forts there, with garrisons in them, against the pirates who infested the coast ‡. When HERCULES had put on the fatal robe, he was afflicted, like VISVADHANWA, with a loathsome and excruciating disease, through the vengeance of the dying NESSUS: others relate (for the same fable is often differently told by the *Greeks*), that HERCULES was covered with gangrenous ulcers from the venom of the *Lernean serpent*,

* Herod. B. 2.

† Strabo, B. 17.

‡ Lib. 36. cap. 9.

and was cured in *Phenice*, at a place called *Ake* (the *Acco* of Scripture) by the juice of a plant, which abounds both in that spot and on the banks of the *Nile* *. The *Greeks*, who certainly migrated from *Egypt*, carried with them the old *Egyptian* and *Indian* legends, and endeavoured (not always with success) to appropriate a foreign system to their new settlements: all their heroes or demigods, named *HERACLES* by them, and *HERCULES* by the *Latians* (if not by the *Æolians*), were sons of *JUPITER*, who is represented in *India* both by *HERA*, or *SIVA*, and by *HERI* or *VISHNU*; nor can I help suspecting, that *HERCULES* is the same with *HERACULA*, commonly pronounced *Hercul*, and signifying the race of *HERA* or *HERI*. Those heroes are celebrated in the concluding book of the *Mahábhárat*, entitled *Herivansa*; and *ARRIAN* says, that the *Suraseni*, or people of *Mat'burà*, worshipped *HERCULES*, by whom he must have meant *CRISHNA* and his descendants.

In the *Canopean* temple of *SERAPIS*, the statue of the god was decorated with a *Cerberus* and a *Dragon*; whence the learned *Alexandrians* concluded, that he was the same with *PLUTO*: his image had been brought from *Sinope* by the command of one of the *Ptolemies*, before whose time he was hardly known in *Egypt*. *SERAPIS*, I believe, is the same with *YAMA* or *PLUTO*; and his name seems derived from the compound *Asrapa*, implying *thirst of blood*: the sun in *Bhádra*, had the title of *YAMA*, but the *Egyptians* gave that of *PLUTO*, says *PORPHYRY*, to the great luminary near the winter solstice †. *YAMA*, the regent of hell, has two dogs, according to the *Puránas*, one of them, named *CERBURA* and *SABALA*, or *varied*; the other *SYAMA*, or *black*; the first of whom is also called *Tris'iras*, or *with three heads*, and has the additional epithets of *Calma'sha*, *Chitra*, and *Cirmira*, all signifying *stained*, or *spotted*: in *PLINY*, the words *Gimmerium* and *Cerberion* seem used as synonymous ‡; but, however that may be, the *CERBURA* of the *Hindus* is indubitably the *CERBURUS* of the *Greeks*. The dragon of *SERAPIS*, I suppose to be the *Séshanága*, which is described as in the infernal regions by the author of the *Bhágavat*.

Having now closed my remarks on the parallel divinities of *Egypt* and *India*, with references to the ancient geography of the countries adjacent to the *Nile*, I cannot end this section more properly than with an account of the *Jainas* and the three principal deities of that sect; but the subject is dark, because the *Bráhmens*, who abhor the followers of *JINA*, either know little of them, or are unwilling to make

* Steph. Byzant. under *Ake*.

† Cited by Euseb.

‡ Lib. 6. c. 6.

them the subject of conversation: what they have deigned to communicate, I now offer to the society.

Toward the middle of the period, named *Padmacalpa*, there was such a want of rain for many successive years, that the greatest part of mankind perished, and BRAHMA' himself was grieved by the distress which prevailed in the universe; RIPUNJAYA then reigned in the west of *Cuska-dwîp*, and, seeing his kingdom desolate, came to end his days at *Câsî*. Here we may remark, that *Câsî*, or *the splendid* (a name retained by PTOLEMY in the word *Cassidia*), is called *Benâres* by the *Moguls*, who have transposed two of the letters in its ancient epithet *Vârânesî*; a name, in some degree preserved also by the *Greeks* in the word *Aornis* on the *Ganges*; for when old *Câsi*, or *Cassidia*, was destroyed by BHAGAWAN, according to the *Purânas*, or by BACCHUS, according to DIONYSIUS PERIGETES, it was rebuilt at some distance from its former site, near a place called *Sivabar*, and had the name of *Vârânasî*, or *Aornis*, which we find also written *Avernus*: the word *Vârânasî* may be taken, as some *Brâhmens* have conjectured, from the names of two rivulets, *Varuna* and *Asî*, between which the town stands; but more learned grammarians deduce it from *vara*, or *most excellent*, and *anas*, or *water*, whence come *Varânasî*, an epithet of *Gangâ* and *Vârânasî* (formed by PĀNINI's rule) of the city raised on her bank. To proceed: BRAHMA' offered RIPUNJAYA the dominion of the whole earth, with *Câsi* for his metropolis, directing him to collect the scattered remains of the human race, and to aid them in forming new settlements: telling him, that his name should thenceforth be DIVO'DA'SA, or *Servant of Heaven*. The wise prince was unwilling to accept so burdensome an office, and proposed as the condition of his acceptance, that the glory which he was to acquire should be exclusively his own: and that no *Dévâtâ* should remain in his capital: BRAHMA', not without reluctance, assented, and even MAHA'DE'VA, with his attendants, left their favourite abode at *Câsi*, and retired to the *Mandara* hills near the source of the *Ganges*. The reign of DIVODAS began with acts of power which alarmed the Gods; he deposed the Sun and Moon from their seats, and appointed other regents of them, making also a new sort of fire: but the inhabitants of *Câsi* were happy under his virtuous government. The deities, however, were jealous, and MAHA'DE'VA, impatient to revisit his beloved city, prevailed on them to assume different shapes, in order to seduce the king and his people. DE'VI' tempted them, without success, in the forms of sixty-four *Yôginis*, or female anchorets: the twelve *A'dityas*, or Suns, undertook to corrupt them; but, ashamed of their failure, remained in the holy town: next appeared GANE'SA, commissioned

commissioned by his father MAHA'DE'VA, in the garb of an *astronomer*, attended by others of his profession; and assisted by thirty-six *Vaináyasis*, or *Gánéfis*, who were his female descendants; and by their help he began to change the disposition of the people, and to prepare them for the coming of the three principal deities.

VISHNU came in the character of JINA, inveighing against sacrifices, prayers, pilgrimages, and the ceremonies prescribed by the *Véda*, and asserting that all true religion consisted in *killing no creature that had life*: his consort JAYA'DE'VI preached this new doctrine to her own sex; and the inhabitants of *Cáfi* were perplexed with doubts. He was followed by MAHA'DE'VA, in the form of ARHAN or MAHIMAN, accompanied by his wife MAHA'MA'NYA, with a multitude of male and female attendants: he supported the tenets of JINA, alleging his own superiority over BRAHMA' and VISHNU, and referring, for the truth of his allegation, to JINA himself, who fell prostrate before him; and they travelled together over the world, endeavouring to spread their heresies. At length appeared BRAHMA' in the figure of BUDDHA, whose consort was named VIJNYA: he confirmed the principles inculcated by his predecessors, and, finding the people seduced, he began, in the capacity of a *Brábmén*, to corrupt the mind of the king. DIVO'DA'SA listened to him with complacency, lost his dominion, and gave way to MAHA'DE'VA, who returned to his former place of residence; but the deposed king, reflecting too late on his weakness, retired to the banks of the *Gómati*, where he built a fortress, and began to build a city on the same plan with *Cás'l*: the ruins of both are still to be seen near *Ghanwoc*, about fourteen miles above the confluence of the *Gumti* with the *Ganges*, and about twenty to the north of *Benáres*. It is added, that MAHA'DE'VA, having vainly contended with the numerous and obstinate followers of the new doctrine, resolved to exterminate them; and, for that purpose, took the shape of SANCARA, surnamed *Acharya*, who explained the *Védas* to the people, destroyed the temples of the *Jainas*, caused their books to be burned, and massacred all who opposed him. This tale, which has been extracted from a book, entitled *Sancara-prádur-bháva*, was manifestly invented for the purpose of aggrandizing SANCARA'CHA'RYA, whose exposition of the *Upa-nishads* and comment on the *Védánta*, with other excellent works, in prose and verse, on the being and attributes of God, are still extant and sedulously studied by the *Védánti* school: his disciples considered him as an incarnation of MAHA'DE'VA; but he tarnished his brilliant character, by fomenting the religious war, in which most of the persecuted *Jainas* were slain or expelled from these parts of *India*; very few

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of them now remaining in the *Gangetick* provinces, or in the western peninsula, and those few living in penury and ignorance, apparently very wretched, and extremely reserved on all subjects of religion. These heterodox *Indians* are divided into three sects: the followers of JINA we find chiefly dispersed on the borders of *India*; those of BUDDHA, in *Tibet*, and other vast regions to the north and east of it; while those of ARHAN (who are said to have been anciently the most powerful of the three), now reside principally in *Siam*, and in other kingdoms of the eastern peninsula. ARHAN is reported to have left impressions of his feet on rocks in very remote countries, as monuments of his very extensive travels: the most remarkable of them is in the island of *Sinhal*, or *Silan*, and the *Siamese* revere it under the name of *Prapút*, from the *Sanscrit* word *Prapáda*; but the *Bráhmens* insist that it was made by the foot of RA'VANA. Another impression of a foot, about two cubits long, was to be seen, in the time of HERODOTUS, on the banks of the river *Tyras*, now called the *Dneijster*; the people of that country were certainly *Bauddhas*, and their high priest, who resided on mount *Gocajon*, at present named *Casjon*, was believed to be regenerate, exactly like the *Lama* of *Tibet*.

As to JINA, he is said, by his followers, to have assumed twenty-four *rúpas*, or *forms*, at the same time, for the purpose of disseminating his doctrine, but to have existed really and wholly in all and each of those forms at once, though in places very remote; but those *rúpas* were of different orders, according to certain mysterious divisions of twenty-four, and the *forms* are considered as more or less perfect, according to the greater or less perfection of the component numbers and the several compounds, the leading number being *three*, as an emblem of the *Trimúrti*: again the twenty-four *rúpas*, multiplied by those numbers, which before were used as divisors, produce other *forms*; and thus they exhibit the appearances of JINA in all possible varieties and permutations, comprising in them the different productions of nature.

Most of the *Bráhmens* insist, that the BUDDHA, who perverted DIVĪDA'SA, was not the *nintb* incarnation of VISHNU, whose name, some say, should be written BAUDDHA, or BO'DDHA; but not to mention the *Amarcósh*, the *Mugdkabódb*, and the *Gitágóvinda*, in all of which the ninth *avatár* is called BUDDHA, it is expressly declared in the *Bhágavat*, that VISHNU should appear *nintbly* in the form of "BUDDHA, son of JINA, for the purpose of confounding the *Daityas*, at a place named *Cícata*, when the *Cáli* age should be completely begun." On this passage it is only remarked by SRÍDHARA *Swámi*, the celebrated commentator, that JINA
and

and AJINA were two names of the same person, and that *Cicata* was in the district of *Gayà*; but the *Pandits*, who assisted in the *Persian* translation of the *Bhāgavat*, gave the following account of the ninth *avatāra*. The *Daityas* had asked INDRA, by what means they could attain the dominion of the world; and he had answered, that they could only attain it by sacrifice, purification, and piety: they made preparations accordingly for a solemn sacrifice and a general ablution; but VISHNU, on the intercession of the *Dēvas*, descended in the shape of a *Sannyasi*, named BUDDHA, with his hair braided in a knot on the crown of his head, wrapt in a squalid mantle, and with a broom in his hand. BUDDHA presented himself to the *Daityas*, and was kindly received by them; but, when they expressed their surprize at his foul vesture, and the singular implement which he carried, he told them, that *it was cruel, and consequently impious, to deprive any creature of life*; that, whatever might be said in the *Vēdas*, every sacrifice of an animal was an abomination, and that purification itself was wicked, because some small insect might be killed in bathing or washing cloth; that he never bathed, and constantly swept the ground before him, lest he should tread on some innocent reptile: he then expatiated on the inhumanity of giving pain to the playful and harmless kid, and reasoned with such eloquence, that the *Daityas* wept, and abandoned all thought of ablution and sacrifice. As this *Māyā*, or *illusive appearance*, of VISHNU, frustrated the ambitious project of the *Daityas*, one of BUDDHA's titles is the son of MA'YA': he is also named SA'CYASINHA, or the *Lion* of the race of *Sācyā*, from whom he descended, an appellation which seems to intimate, that he was a conqueror, or a warrior, as well as a philosopher. Whether BUDDHA was a sage or a hero, the leader of a colony, or a whole colony personified, whether he was black or fair, whether his hair was curled or straight, if indeed he had any hair (which a commentator on the *Bhāgavat* denies), whether he appeared in ten, or two hundred, or a thousand years, after CRISHNA, it is very certain that he was not of the true *Indian* race: in all his images, and in the statues of *Bauddhas*, male and female, which are to be seen in many parts of these provinces and in both peninsulas, there is an appearance of something *Egyptian* or *Ethiopian*; and both in features and dress, they differ widely from the ancient *Hindu* figures of heroes and demigods. SA'CYA has a resemblance in sound to SISAC, and we find CHA'NAC abbreviated from CHA'NACYA; so that SISAC and SESONCHOSIS may be corrupted from SA'CYASINHA, with a transposition of some letters, which we know to be frequent in proper names, as in the word *Banāres*. Many of his statues in *India* are colossal, nearly naked, and usually

represented sitting in a contemplative attitude; nor am I disinclined to believe, that the famed statue of MEMNON, in *Egypt*, was erected in honour of MAHIMAN, which has MAHIMNA' in one of its oblique cases, and the *Greeks* could hardly have pronounced that word otherwise than MAIMNA, or MEMNA: they certainly used *Mai* instead of *Mabà*, for HESYCHIUS expressly says, *Mai*, μεγάλη. Ἰνδοί: and *Mai* signifies *great* even in modern *Coptick*. We are told, that MAHIMAN, by his wife MAHA'MAN'YA', had a son named SHAMANA CARDAMA, who seems to be the SAMMANO CODOM of the *Bauddhas*, unless those last words be corrupted from SAMANTA GO'TAM, which are found in the *Amarcôsh* among BUDDHA's names. CARDAM, which properly means *clay* or *mud*, was the first created man, according to some *Indian* legends, but the *Purânas* mention about seven or eight, who claimed the priority of creation; and some *Hindus*, desirous of reconciling the contradiction, but unwilling to admit that the same fact is differently related, and the same person differently named, insist that each was the first man in his respective country. Be this as it may, CARDAMA lived in *Varuna-c'banda*, so called from his son VARUNA, the god of ocean, where we see the ground-work of the fable concerning PALÆMON, or MELICERTUS, grandson of CADMUS: now that *c'banda*, or division of *Jambudwîp* comprised the modern *Persia*, *Syria*, and *Asia* the Less; in which countries we find many traces of MAHIMAN and his followers, in the stupendous edifices, remarkable for their magnificence and solidity, which the *Greeks* ascribed to the *Cyclopes*. The walls of *Susa*, about sixteen miles in circumference, were built by the father of MEMNON; the citadel was called *Memnonium*, and the town *Memnonia*; the palace is represented by ÆLIAN as amazingly sumptuous, and STRABO compares its ancient walls, citadels, temples, and palace to those of *Babylon*; a noble high road through the country was attributed to MEMNON; one tomb near *Troy* was supposed to be his, and another in *Syria*; the *Ethiopians*, according to DIODORUS of *Sicily*, claimed MEMNON as their countryman, and a nation in *Ethiopia* were styled *Memnones*; on the borders of that country and of *Egypt*, stood many old palaces, called *Memnonian*; part of *Thebes* had the name of *Memnonium*; and an astonishing building at *Abydus* was denominated MEMNON's palace; STRABO says, that many supposed ISMANDES to have been the same with MEMNON, and consequently they must have thought the Labyrinth a *Memnonian* structure*.

DIVO'DA'SA, pronounced in the popular dialects DIODA'S, reigned over some

* Herod. V. 54. ÆL. XIII. 18. Diocl. III. 69. Strab. XV. p. 728. XVII. p. 813.

western districts of *Cusba-dwîp* *within*, which extended from the shores of the *Mediterranean* to the banks of the *Indus*; and he became, we find, the first mortal king of *Varânes*: he seems to have been the *HERCULES DIODAS* mentioned by *EUSEBIUS*, who flourished in *Phenice*, and, it is supposed, about 1524 years before our era; but, in my humble opinion, we cannot place any reliance on such chronological calculations; which always err on the side of antiquity. The three sects of *JINA*, *MAHIMAN*, and *BUDDHA*, whatever may be the difference between them, are all named *BAUDDHAS*; and, as the chief law, in which, as the *Brâhmens* assert, they make virtue and religion consist, is *to preserve the lives of all animated beings*, we cannot but suppose, that the founder of their sect was *BUDDHA*, the ninth *ava-târ*, who in the *Agnipurân*, has the epithet of *Sacriâpa*, or Benevolent, and, in the *Gitâgôvinda*, that of *Sadaya-brîdaya*, or Tender-hearted: it is added, by *JAYADEVA*, that “he censured the whole *Vêda*, because it prescribed the immolation of cattle.” This alone, we see, has not destroyed their veneration for him; but they contend that atheistical dogmas have been propagated by modern *Bauddhas*, who were either his disciples, or those of a younger *BUDDHA*, or so named from *buddhi*, because they admit no supreme divinity, but *intellect*; they add, that even the old *Jainas*, or *Jayanas*, acknowledged no gods but *JYA'*, or Earth, and *VISHNU*, or Water; as *DERIADES* (perhaps *DURYÔDHAN*) is introduced by *NONNUS* boasting, that Water and Earth were his only deities; and reviling his adversaries, for entertaining a different opinion*; so that the *Indian* war, described in the *Dionysiacks*, arose probably from a religious quarrel. Either the old *Bauddhas* were the same with the *Cutila-cêsas*, or nearly allied to them; and we may suspect some affinity between them and the *Pâlis*, because the sacred language of *Siam*, in which the laws of the *Bauddhas* are composed, is properly named *Pâli*; but a complete account of *BUDDHA* will then only be given, when some studious man shall collect all that relates to him in the *Sanscrit* books, particularly in the *Vâyu-purân*, and shall compare his authorities with the testimonies, drawn from other sources by *KÆMPFER*, *GIORGI*, *TACHARD*, *DE LA LOUBERE*, and by such as have access to the literature of *China*, *Siam*, and *Japan*.

* *Dionysiac. B. 21, v. 247, &c. 259, &c.*

SECTION THE THIRD.

WE come now to the demigods, herbes, and sages, who at different times visited *Egypt* and *Ethiopia*, some as vindictive conquerors, and some as instructors in religion and morality.

I. PE'T'HÍ'NÁ'S, or PĒT'HE'NÁ'S, was a *Rīshi*, or holy man, who had long resided near Mount *Himàlaya*, but at length retired to the places of pilgrimage on the banks of the *Cálì*, designing to end his days there in the discharge of his religious duties: his virtues were so transcendent, that the inhabitants of the countries bordering on that river, insisted on his becoming their sovereign, and his descendants reigned over them to the *thirteenth* generation; but his immediate successor was only his adopted son. The following series of *fifteen* kings may constitute, perhaps, the dynasty; which, in the history of *Egypt*, is called the *Cynick Circle*:

PE'T'HÍ'NÁ'S.

Pai't'hínasi,

Crītriménás,

Ishténás,

10 Carmanyénas,

Yashténás,

Pit' bini,

5 Cashténás,

Pát' bini.

Jushténás,

Páttiyamsuca,

Pushténás,

Pét'hi-suca,

Sushténás,

15 Mèd'hí-suca.

Each of those princes is believed to have built a place of worship, near which he usually resided; but of the fifteen temples, or consecrated edifices, we can only ascertain the situation of *seven* with any degree of accuracy.

The founder of the family was a pious and excellent prince, observing in all respects the ordinances of the *Vēda*: his name is to this day highly venerated by the *Bráhmens*; many sacerdotal families in *India* boast of their descent from him; and the laws of PAIT'HÍ'NASI are still extant, in an ancient style and in modulated prose; among the many tracts which collectively form the *Dherma-Sāstra*. It must be observed, that he was often called PĪT'HERISHI, or PĪT'HERISHI; and his place of residence, *Pit'hé-rīshi-ś' bán*; but the short vowel *rī* has the sound of *rū* in

the

the western pronunciation, like the first syllable of *Richard* in some *English* countries: thus, in some parts of *India*, *amṛita*, or *ambrosia*, is pronounced *amrūt*, whence I conjecture, that the seat of *Pitṛé-rushi* was the *Pathros* of Scripture, called *Phatures* by the Seventy, and *Phatori* by EUSEBIUS, which gave its appellation to the *Phaturitic* nome of PLINY. Some imagine *Phaturis* to have been *Thebes*, or *Diospolis*; but PLINY mentions them both as distinct places, though, from his context, it appears that they could not be far asunder; and I suppose *Phaturis* to be no other than the *Tathyris* of PTOLEMY, which he places at no great distance from the *Memnonium*, or western suburb of *Thebes*; and, in the time of PTOLEMY, the nome of *Phaturis* had been annexed to that of *Diospolis*, so that its capital city became of little importance: we took notice, in the first section, that the *Ethiopians*, who, from a defect in their articulation, say TAULOS instead of PAULOS, would have pronounced *Titboes* for *Pitboes*, and *Tathuris* for *Pathuris*.

Though we before gave some account of the fabulous RA'HU and the *Grabas*, yet it may not be superfluous to relate their story in this place at greater length. RA'HU was the son of CAS'YAPA and DITI, according to some authorities; but others represent SINHICA' (perhaps the *Sphinx*) as his natural mother: he had four arms; his lower parts ended in a tail like that of a dragon; and his aspect was grim and gloomy, like the *darkness* of the chaos, whence he had also the name of TAMAS. He was the adviser of all mischief among the *Daityas*, who had a regard for him; but among the *Dévatás* it was his chief delight to sow dissention; and, when the gods had produced the *amrit* by churning the ocean, he disguised himself like one of them, and received a portion of it; but the Sun and Moon having discovered his fraud, VISHNU severed his head and two of his arms from the rest of his monstrous body. That part of the nectareous fluid which he had time to swallow, secured his immortality: his trunk and dragon-like tail fell on the mountain of *Malaya*, where MINI, a *Bráhmen*, carefully preserved them by the name of CE'TU; and, as if a complete body had been formed from them, like a dismembered polype, he is even said to have adopted CE'TU as his own child. The head with two arms fell on the sands of *Barbara*, where PI'T'HENAS was then walking with SINHICA', by some called his wife: they carried the *Daitya* to their palace, and adopted him as their son; whence he acquired the name of PAIT'HENASI. This extravagant fable is, no doubt, astronomical; RA'HU and CE'TU being clearly the *nodes*, or what astrologers call the *head* and *tail* of the dragon: it is added, that they appeased VISHNU, and obtained re-admission to the firmament, but were no longer visible from the

earth, their enlightened sides being turned from it; that RA'HU strives during eclipses, to wreak vengeance on the Sun and Moon, who detected him; and that CE'TU often appears as a comet, a whirlwind, a fiery meteor, a water-spout, or a column of sand. From PAITHI'NA's the *Greeks* appear to have made *Pythons* in their oblique case; but they seem to have confounded the stories of PYTHON and TYPHON, uniting two distinct persons in one *. PAIT'HENASI, who reigned on the banks of the *Cálì* after PIT'HENAS his protector, I suppose to be TYPHON, TYPHAON, or TYPHÆUS: he was an usurper and a tyrant, oppressing the *Dévatás*, encouraging the *Daityas*, and suffering the *Védas* to be neglected. HERODOTUS represents him, like RA'HU, as constantly endeavouring to destroy APOLLO and DIANA †; and the Mythologists add, that he was thunderstruck by JUPITER, and fell into the quicksands of the lake *Sirbonis*, called also *Sirbon* and *Sarbonis*: now *Swarbbánu*, one of his names, signifies *Light of Heaven*, and, in that character, he answers to LUCIFER. The fall of that rebellious angel is described by ISAIAH, who introduces him saying, that "he would exalt his throne above the stars of "GOD, and would sit on the mount of the congregation in the sides of the North:" the heavenly *Méru* of the *Puránas*, where the principal *Dévas* are supposed to be seated, is not only in the north, but has also the name of *Sabbá*, or the *congregation*. Fifty-six comets are said, in the *Chintámani*, to have sprung from CE'TU; and RA'HU had a numerous progeny of *Grábas*, or crocodiles: we are told by ÆLIAN, that TYPHON assumed the form of a crocodile ‡, and RA'HU was often represented in the shape of that animal, though he is generally described as a dragon. The constellation of the dragon is by the *Japanese* called the *Crocodile*; and the sixth year of the *Tartarian* cycle has the same appellation: it is the very year, which the *Tibetians* name the year of *Lightning*, alluding to the dragon, who was stricken by it ||. A real tyrant of *Egypt* was, probably, supposed to be RA'HU, or TYPHON, in a human shape; for we find, that he was actually expelled from that country together with his *Grábas*: I have not yet been able to procure a particular account of their expulsion. The *ś'hán* of RA'HU, or PAITHI'NASI, named also PAIT'HI, seems to have been the town of *Pithom* on the borders of *Egypt*: the *Seventy* wrote it *Peitbo*, and HERODOTUS calls it *Patumos*; but, the *second* case in *Sanscrit* being generally affected in the western dialects, we find it written *Phithom*

* Plut. Isis and Osiris.

† B. 2. c. 156.

‡ On Animals, B. 10. c. 21.

|| Alphab. Tibet. p. 463.

by the old *Latin* interpreter, *Fithom* by HIERONYMUS, and *Pethom* in the *Coptick* translation. The *Greek* name of that city was *Heroöpolis*, or according to STRABO, *Heroön*; but we are informed by STEPHANUS of *Byzantium**, that, “when TY-PHON was smitten by lightning, and blood (αἷμα) flowed from his wounds, the place where he fell was thence called *Hæmus*, though it had likewise the name of *Hero* :” so the station of the RA’HU was on the spot where PI’T’HE’NA’S and SINGHICA’ found his bloody head rolling on the sands; and, if *Singhicá*, or the *Woman like a Lioneſs*, be the *Sphinx*, the monstrous head, which the *Arabs* call *Abu’lhaul*, or *Father of Terror*, may have been intended for that of RA’HU, and not, as it is commonly believed, for his mother. Though the people of *Egypt* abhorred TYPHON, yet fear made them worship him; and in early times they offered him human victims: the *Greeks* say, that he had a red complexion, and mention his expulsion from *Egypt*, but add a strange story of his arrival in *Paleſtine*, and of his three ſons. We muſt not, however, confound RA’HU with MAHA’DE’VA, who, in his deſtructive character was called alſo TYPHON; though it be difficult ſometimes to diſtinguiſh them: ſeveral places in *Egypt* were dedicated to a divinity named TYPHON; as the *Typhaonian* places between *Tentyra* and *Coptos*; and the tower of *Melite*, where daily ſacrifices were made to a dragon ſo terrible, that no mortal durſt look on him; the legends of the temple relating, that a man, who had once the temerity to enter the reſſes of it, was ſo terrified by the ſight of the monſter, that he ſoon expired †. *Melite*, I preſume, was in that part of the *Delta*, which had been peopled by a colony from *Miletus*; and was, probably, the *Mileſian* wall or fort near the ſea-ſhore, mentioned by STRABO.

The uſurper was ſucceeded by ISHTENA’S, the real ſon of PI’T’HE’NA’S, who had alſo a daughter named PAIT’HE’NI; and her ſtory is related thus in the *Brab-mánda-purán*. From her earlieſt youth ſhe was diſtinguiſhed for piety, eſpecially towards MAHA’DE’VA, on whom her heart was ever intent; and, at the great feſtival, when all the nation reſorted to *Cardamaſt’bali*, or *Thebes*, the princeſs never failed to ſing and dance before the image of CARADAME’SWARA: the goddeſs ISWARI’ was ſo pleaſed with her behaviour, that ſhe made PAITHE’NI her *Sac’bì*, or female companion; and the damſel uſed to dance thrice a day in the mud before the gate of the temple, but with ſuch lightneſs and addreſs as never to ſoil her mantle. She died a virgin, having devoted her life to the ſervice of the god and his conſort.

* Under the word *Hæm*.

† *Ælian* on Animals, B. II. c. 17.

The female patronymick PAIT'HENI comes from PIT'H' or PIT'HE'NA, but from PIT'HE'NA's the derivative form would be PAITHE'NASI'; and thence NONNUS calls her PEITHIANASSA, and describes her as a handmaid of SEMELE, the daughter of CADMUS, in which character she received JUNO *, who was devising the ruin of SEMELE, and with that intent had assumed the form of a loquacious nurse: this passage in the *Dionysiacs* is very interesting, as it proves, in my opinion, that the SEMELE and CADMUS of the *Greeks*, were the same with the SYA'MALA' and CARDAMA of the *Hindus*.

The *fourteenth* prince of this dynasty was devoted from his infancy to the worship of ISWARA, on whom his mind was perpetually fixed, so that he became insensible of all worldly affections, and indifferent both to the praise and censure of men: he used, therefore, to wander over the country, sometimes dwelling on hills and in woods, sometimes in a bower, rarely in a house, and appearing like an idiot in the eyes of the vulgar, who, in ridicule of his idle talk and behaviour, called him, *Pét'bi-suca*, *Panjara-suca*, or *Sála-suca*, meaning the *parrot* in a *chest*, a *cage*, or a *house*, which names he always retained. When he grew up, and sat on the throne, he governed his people equitably and wisely, restraining the vicious by his just severity, and instructing the ignorant in morals and religion: by his wife MA'RISHA' he had a son called MED'HI-SUCA, to whom at length he resigned his kingdom, and, by the favour of ISWARA, became *jivanmucta*, or *released*, even *during life*, from all encumbrances of matters; but the story of MA'RISHA' and his son has been related in a preceding section. *Méd'bi*, or *Mér'bi*, means a pillar, or *a post to which victims are tied*, or any straight pole perpendicularly fixed in the ground; and *Pattyam*, I believe, signifies a cross stick, or a wooden bar placed horizontally; so that *Pattyam-suca* might have meant the *parrot on a perch*; but why the *thirteenth* prince had that appellation, I am not yet informed: SUCA is also a proper name; the son of VYASA, and principal speaker in the *Bhágavat*, being called SUCA-DEVA. Now many *obelisks* in *Egypt* were said to have been raised by a king named SUCHIS †; and the famous labyrinth, to have been constructed by King PETESUCCUS ‡: by *Mér'bi* we may certainly understand either a pillar or an obelisk, or a slender and lofty tower like the *Menárabs* of the *Muselmans*, or even a high building in a pyramidal form. The *Hindus* assert, that each of the three SUCAS had a particular edifice ascribed to him; and we can hardly

* *Dionysiac*. B. 8. v. 193.

† *Plin*. L. 36. c. 8.

‡ *Plin*. L. 36. c. 13.

doubt, that the *st'kdn* of PE'THI-SUCA was the labyrinth: if the three names of that prince have any allusion to the building, we may apply *Sáldá*, or mansion, to the whole of it; *Panjara*, or cage, to the lower story, and *Pét'hi*, or chest, to the various apartments under ground, where the chests, or *coffins*, of the sacred crocodiles, called *Sukbus* or *Sukbis* in old *Egyptian**, and *Soukb* to this day in *Coptick*, were carefully deposited. HESYCHIUS, indeed, says, that *Buti* signified a chest, or coffin, in *Egyptian*; but that, perhaps, must be understood of the vulgar dialect: the modern *Copts* call a chest *be-ut*, or, with their article, *tabút*; a word which the *Arabs* have borrowed. When PLINY informs us, that PETESUCCUS was named also TITHOES, we must either read PITHOES from PE'T'HI, or impute the change of the initial letter to the defective articulation of the *Ethiopians*, who frequently invaded *Egypt*. From the account given by HERODOTUS, we may conjecture, that the coffins of the *sacred crocodiles*, as they were called, contained in fact the bodies of those princes, whom both *Egyptians* and *Hindus* named *Sucas*, though *suc* means a parrot in *Sanscrit*, and a crocodile in the *Coptick* dialect: the *Sanscrit* words for a crocodile are *Cumbhira* and *Nacra*, to which some expositors of the *Amarcós* and *Avagraha* and *Gráha*; but, if the royal name was symbolical, and implied a peculiar ability to *seize* and *hold*, the symbol might be taken from a bird of prey, as well as from the lizard kind; especially as a sect of *Egyptians* abhorred the crocodile, and would not have applied it as an emblem of any legal and respectable power, which they would rather have expressed by a hawk, or some distinguished bird of that order: others, indeed, worshipped crocodiles, and I am told, that the very legend before us, framed according to their notions, may be found in some of the *Puránas*.

We find then three kings named SUCAS, or *parrots*, living in a *house* or a *cage*, or resting either on an *upright pole*, or on one with a *cross-bar*, but who they were, it is not my present object, nor am I now able, to investigate: I will only observe, that besides the king of *Egypt*, whom PLINY calls SUCHIS, or SOCHIS, the father of the *Curetes*, is named SOCHUS by a *Greek* lexicographer, and SOCUS by the author of the *Dionysiacks*; and that he was one of the *Cabires* or *Cuvéras*, who (or at least some of whom) inhabited in former ages the countries adjacent to the *Nile*.

The ruins of that wonderful building, called the Labyrinth, are still to be seen near the lake *Mæris*, at a place which the *Arabs* have named the *Kasr*, or palace, of KA'RUN, whom they suppose to have been the richest of mortals; as the ruins

* STRABO, B. 17. p. 811. DAMASCIUS, Life of ISIDORUS.

of MEDHI-SU'CA-*st'bán* are in a district, named the *Belád*, or country, of the same personage: the place last mentioned is, most probably, the labyrinth built, according to DAMOTELES in PLINY, by MOTHERUDES, a name derived, I imagine, from MEDHI-RUSHI. The town of *Meta-camsa*, mentioned by PTOLEMY as opposite to *Pfelchis* above *Syene*, seems to have had some connection with *Medbi-suca*; for *camsa* and *suca* were synonymous in the old *Egyptian*: HERODOTUS at least informs us, that *camsa* meant a crocodile in that language; and it appears related to *timsáb* in *Arabick*. *Patyam* (for so the long compound is often abbreviated), seems to have been the labyrinth near *Arfinoe*, or *Crocodilopolis*, now *Fayum*, which word I suppose corrupted from *Patyam*, or *Phatyam*, as the *Copts* would have pronounced it; and my *Pandit* inclines also to think, that the building might have been thus denominated from large pieces of stone or timber projecting, like *patyas*, before the windows, in order to support the frames of a balcony, which, as a new invention, must have attracted the notice of beholders. As to the lake of *Mæris*, I have already exhibited all that I have yet found concerning it: the stupendous pyramid, said to have been six hundred feet high, in the midst of that lake, was raised, we are told, by a king named MÆRIS, MYRIS, MARROS, MAINDES, MENDES, and IMANDES*; a strong instance of one name variously corrupted; and I have no doubt, that the original of all those variations was MERHI or MEDHI. Even to this day in *India*, the pillars or obelisks, often raised in the middle of tanks, or pools, are called *Mérhis*; but let us proceed to another legend faithfully extracted from the *Mahá calpa*, in which we see, beyond a doubt, the affinity of *Indian*, *Egyptian*, and *Grecian* Mythology.

II. On the mountains of *Jwálámuc'ba*, in the interior *Cusha-dwíp*, reigned a virtuous and religious prince, named C'HARVANA'YANA's, whose son, CAPE'YANA's, preferred arms and hunting, in which he was continually engaged, to the study of the *Véda*, and was so frequently concerned in contests and affrays with his neighbours, that his father, after many vain admonitions, banished him from his palace and his kingdom: the dauntless young exile retired to the deserts, and at length reached *Mócsbéja*, believed to be *Mecca*, where, hungry and fatigued, he bathed in the *Mócska-tírt'ba*, or consecrated well, and passed the night without sleep. VISVACSE'NA, then sovereign of that country, had an only daughter PADMAMUC'HI', or with a face like a lotos, who went to perform religious rites to MAHA'DE'VA, god

* STRABO, B. 17. p. 811. Diod. Sic. B. 1. p. 55.

of the temple and the well; and there seeing the prince, she brought him refreshment, and heard his adventures; their interview ended in mutual love, and the old king, who denied her nothing, consented to their marriage, which was solemnized with the ceremony of *Pánigraba*, or *taking hands*; and the young pair lived many years happily in the palace of their father. It happened some time after, that the city was besieged by two kings of the *Dánavas* with a numerous army; but CAPE-YANA's entirely defeated them: the venerable monarch met his brave son-in-law returning with conquest, and, having resigned the throne to him, went to the banks of the *Cálì*, accompanied by his wife, and entered with her into the *third* order, called *Vánaprest'ha*, or that of *hermits*, in which they passed the remainder of their lives, and, after death, obtained *laya*, or *union with the Supreme Spirit*; whence their station was named *Layaś'bán*, or *Layavatì*, and was visited, for ages after, by such as hoped for beatitude. CAPE'YANAS, or CAPE'NAS (for he is differently named in the same book), adhered so strictly to justice, and governed so mildly, that he was respected by his neighbours and beloved by his subjects: yet he became a great conqueror, always protecting the weak, and punishing their oppressors. All the princes to the east of *Mócshésa* paid him tribute; but CA'LAŚE'NA, king of the exterior *Cusba-dwíp*, having insolently refused to become his tributary, he invaded *Abyssinia*, and, after a very long battle, at a place named *Ranót'sava*, or the *festival of combat*, wholly defeated CA'LAŚE'NA, whom he replaced on his throne, exacting only a regular acknowledgment of his dominion paramount: then, following the course of the *Cálì* river, he came to *Barbara*, or the burning sands of *Nubia*, the king of which country was GULMA, one of the *Tamóvansas*, or the son of MA'NDYA, who was the son of TAMAS, or SANI, by his wife JARAT'HA'; but from GULMA he met with no resistance, for the wise king laid his diadem at the feet of CAPE'NAS, who restored it, and desired his company, as a friend, in his expedition to *Misra-ś'bán*. The sovereign of *Misra* was at that time RANASU'RA, who, disdainng submission, sent his son RANADURMADA with a great force against CAPE'NAS, and soon followed him at the head of a more powerful army: an obstinate battle was fought, at a place called afterwards *Ghóra-ś'bán*, from the horror of the carnage; but RANASU'RA was killed, and his troops entirely routed. The conqueror placed the prince on the throne of *Misra*, the capital of which was then called *Viśvā-cirti-pura*, or the *City of Universal Fame*: and, having carried immense treasures to *Mócshésa*, he dedicated them to the God of the temple, resolving to end his days in peaceful devotion: by PADMAMUC'HÍ he had a daughter

named

named ANTARMADA', and a son BHA'LE'YANA's, to whom, after the example of ancient monarchs, he resigned his kingdom when he grew old, and prepared himself for a better life.

Before his death he was very desirous of performing the great *sacrifice of a horse*, called *Afwamédha*, but considerable difficulties usually attended that ceremony; for the consecrated horse was to be set at liberty for a certain time, and followed at a distance by the owner, or his champion, who was usually one of his near kinsmen; and, if any person should attempt to stop it in its rambles, a battle must inevitably ensue: besides, as the performer of a hundred *Afwamédhas* became equal to the God of the firmament, INDRA was perpetually on the watch, and generally carried off the sacred animal by force or by fraud; though he could not prevent BELI from completing his hundredth sacrifice; and that monarch put the supremacy of the *Dévas* to proof, at the time, when the *Padma-mandira* was built on the banks of the *Cumudvatî*; nor did he prevail against RAGHU, whose combat with INDRA himself is described by CALIDA's in a style perfectly *Homerick*. The great age of CAPE'NAS obliged him to employ his son in that perilous and delicate service; but INDRA contrived to purloin the horse, and BHA'LE'YANA's resolved never to see his father or kingdom, unless he could recover the mystical victim: he wandered, therefore, through forests and over deserts, till he came to the bank of the *Ganges* near *Avaca-pura*, or *Alacá-purâ*, about twelve *crós* N.N.W. of *Badarî-nât'b*; and there, in the agonies of despondence, he threw himself on the ground, wishing for death; but GANGA', the river goddess, appeared to him, commanded him to return home, and assured him, that he should have a son, whom she would adopt by the name of GA'NGE'YANA's, who should overcome INDRA, and restore the horse to his grandfather. Her prediction was in due time accomplished; and the young hero defeated the army of INDRA in a pitched battle near the river *Câlî*, whence he acquired the title of VI-RAUJA-JIT, or vanquisher of INDRA: the field of *battle* was thence named *Samara-sî'bán*; and is also called *Virásaya*, because the flower of *heroes* had been there lulled in the *sleep* of death. BHA'LE'YANA's, having a very religious turn of mind, placed his son on the throne, and, observing that his sister ANTARMADA' had the same inclinations, retired with her to the forest of *Tapas*, in *Upper Egypt*; both intending to close their days in devout austerities and in meditation on the Supreme Spirit: MA'YA-DE'VI, or the goddess of worldly illusion, who resembles the APHRODITE *Pandemos* of the *Greeks*, and totally differs from JNYA'-DE'VI, or the goddess of celestial wisdom, attempted to disturb them, and to prevent them from reaping the
fruit

fruit of their piety ; but she was unable to prevail over the fervent devotion of the two royal anchorites. Her failure of success, however, gave her an unexpected advantage ; for ANTARMADA' became too much elated with *internal pride*, which her name implies ; and, boasting of her victory over MA'YA'DE'VI', she added, that the inhabitants of the three worlds would pay her homage, that she should be like ARUNDHATI', the celebrated consort of VASISHT'HA, and that, after her death, she should have a seat in the starry mansion : this vaunt provoked MA'YA'DE'VI' to a phrensy of rage ; and she flew to AURVA, requesting him to set on fire the forests of *Tapas* ; but VISHNU, in the shape of a hollow conical mountain, surrounded the princess, and saved her from the flames ; whence the place, where she stood, was called the *ś'bán* of *Cb'háditá*, or the *covered*, and the *Periracshitá*, or the *guarded on all sides*. The enraged goddess then sent a furious tempest ; but VISHNU, assuming the form of a large tree, secured her with its trunk and branches at a place thence named *Racshitá-ś'hana* : MA'YA'DE'VI', however, seized her, and cast her into a certain sea, which had afterwards the name of *Amagna*, because VISHNU endued its waters with a power of supporting her on their surface ; and they have ever since retained that property, so that *nothing sinks* in them.

The fourth and last machination was the most dangerous and malignant : DE'VI' carried ANTARMADA' to the sea-shore, and chained her to a rock, that she might be devoured by a *Gráha*, or sea-monster ; but VISHNU, ever vigilant to preserve her, animated a young hero, named PA'RASI'CA, who slew the monster, and released the intended victim, at a place named, from her deliverance, *Uddhára-ś'bán*. He conducted her to his own country, and married her at a place called *Pánigráha*, because he there *took her by the hand*, in the nuptial ceremony : they passed through life happily, and, after death, were both seated among the stars, together with CAPE'NAS and PADMAMUC'HÍ', who had also the patronymick of CA'SYAPÍ'. Among the immediate descendants of PA'RASICA and ANTARMALA', we find VA'RASICA and RASICA, who reigned successively, TIMICA and BHA'LUCA, who travelled, as merchants, into distant countries, and BHA'LUCA'YANI, who seems to have been the last of the race.

The pedigree of CAPE'NAS has been carefully preserved ; and many *Bráhmens* are proud of their descent from him :

CAS'YAPA and ADITA.

'Sāndilāyanās,		Maunjāyanās,	
Cóbalāyanās,		Ĵānavān'sāyanās,	
Pāyacāyanās,		Vānyavatśāyanās,	
Daitēyāyanās,		C'harvānāyanās,	15
Audamóghāyanās	5	CAPE'YANA'S,	
Mútrāyanās,		Bhāleyanās,	
Vacyas'an'dhāyanās,		Gāngēyanās,	
C'harvagāyanās,		Satrugāyanās,	
Cāauśhāyanās,		Vailāyanās,	20
Vārtāyanās,	10	Ĵāngbrāyanās,	
Vātsanāyanās,		Cānsāyanās.	

A twenty-third prince, named CANSALA'YANA'S, is added in some genealogical tables.

This is manifestly the same story with that of CEPHEUS and CASSIOPEA, PERSEUS and ANDROMEDA. The first name was written CAPHEUS, or CAPHYEUS, by the *Arcadians* *, and is clearly taken from CAPE'YA, the termination *nās* being frequently rejected: some assert, that he left no male issue; and APOLLODORUS only says, that he had a daughter, named STEROPE, the same, I presume, with ANDROMEDA. The wife of CAPE'YA was either descended herself from CASYAPA, or was named CA'SYAPI, after her marriage with a prince of that lineage. PA'RASICA is declared in the *Purānas* to have been so called, because he came from *para*, or *beyond*, that is from beyond the river *Cālī*, or from the west of it; since it appears from the context, that he travelled from west to east; the countries on *this side* of the Nile, with respect to *India*, have thence been denominated *Arva-s'bán*, or, as the *Persians* write it, *Arabistán*; while those nations who were seated on *the other side* of it, were called *Párasicáb*, and hence came the *Pharusü*, or *Perse*, of *Lybia*, who are said by PLINY to have been of *Persian* origin, or descended from PERSEUS, the chief scene of whose achievements was all the country from the western bank of the Nile to the ocean; but I do not believe that the word *Párasicáb* has any relation to the *Persians*, who in *Sanscrit* are called *Párasáb*, or inhabitants of *Párasa*, and some-

* Pausan. Arcad.

times *Pārasavah*, which may be derived from *PARASU*, or *Parasvāh*, from their excellent horses. I must not omit, that *Arva-st'hān*, or *Arabia*, is by some derived from *Arvan*, which signifies a fine horse, the final letter being omitted in composition: *ARVAN* is also the name of an ancient sage, believed to be a son of *BRAHMA*'.

In order to prove, by every species of evidence, the identity of the Grecian and Indian fables, I one night requested my *Pandit*, who is a learned astronomer, to shew me among the stars the constellation of *Antarmadā*; and he instantly pointed to *Andromeda*, which I had taken care not to show him first as an asterism, with which I was acquainted: he afterwards brought me a very rare, and wonderfully curious, book in *Sanscrit*, with a distinct chapter on the *Upanacshatras*, or constellations out of the Zodiack, and with delineations of *CAPEYA*, or *CA'SYAPI*' seated, with a lotos-flower in her hand, of *ANTARMADA*', chained with the fish near her, and of *PA'RASI'CA* holding the head of a monster, which he had slain in battle, dropping blood, with snakes instead of hair, according to the explanation given in the book: but let us return to the geography of the *Purānas*.

We mentioned, in the first section, the two *Jwālamuc'hīs*, near one of which the father of *CAPEYANA*'S resided: the *Jwālamuc'hī*, now *Corcūr*, which was also named *Andyāsū-dēvi-st'hān*, was at no great distance from the *Tigris*, and seems, as we intimated before, to be the τῆς Ἀνδίας Ἰερὸν of *STRABO* *. I suppose it to be the original *Ur* of the *Chaldeans*; original, I say, because there were several places of that name, both in *Syria* and *Chaldea*, where superstitious honours were paid to fire, either natural or artificial. The epithet *great* is applied in some *Purānas* to this *Jwālamuc'hī*, and in others to that near *Baku*; to this, perhaps, by way of eminence in sanctity, and to that, because its flames were more extended and fiercer. *Laya-st'hān*, or *Layavati*, where *VISVACSE'NA* closed his days near the *Cālī*, we have also mentioned in a preceding section; and it was, probably, the *Lete* of *JOSEPHUS* †, or some place very near it; *STEPHANUS* of *Byzantium* calls it *Letapolis*, or *Latopolis*, and says, that it was a suburb of *Memphis* near the pyramids ‡. *Ghōra-st'hān* is yet unknown: it could not have been very far from *Viśva-cīrti-pura*; but universal fame is applicable to so many cities of *Egypt*, that we cannot appropriate it to any one of them. Of *Tapas* and *Tapovana*, we have already spoken: and *Cb'hādītā*, or *Periracshītā*, must have been in those forests of *Thebais*: the tree of *Racshītā* was,

* B. 17. p. 738.

† B. 2.

‡ B. 17.

possibly,

possibly, the holy Sycamore mentioned by PLINY, fifty-four miles above *Syene*, on the banks of the *Nile* *. The sea of *Amagna* was, most probably, the *Asphaltite* lake, the waters of which had, and some assert, to have this day, so buoyant a quality, that nothing could sink in them: MAUNDREL takes particular notice of this wonderful property. That lake was not far from *Uddbára-s'bán*, or *Joppe*, where ANDROMEDA was chained to a rock: PLINY says, that the place of her confinement and deliverance was shown there in his time †; and the *San scrit* word *Yapmá*, which the *Arabs* pronounce *Yáfah*, and the *Europeans* call *Joppa*, means *deliverance from imminent danger*. On the *Egyptian* shore, opposite to *Joppa*, was a place called the *Watch-tower* of PERSEUS: by *Grába*, a crocodile or a shark, we may understand also one of RA'HU's descendants, among whom the females were the *Graiai*, or *Grææ*, of the western mythologists. *Pánigraba* was, I suppose, the town of *Panopolis*, which could have no relation to the God PAN; for HERODOTUS, who had been there, informs us, that it was called both *Panopolis* and *Chemmis*, that the inhabitants of it paid divine honours to PERSEUS, and boasted that he was born in it; but had PAN, of whom that historian frequently speaks, been the tutelary god of the town, he would certainly have mentioned that fact: in the acts of the council of *Ephesus*, we find that SABINUS was *Panis Episcopus*, as if one named of the town had been *Pani* or *Panis*; and it might have been anciently named *Páni-gríba*, the *mansion* or *place* of the *band*, that is of *wedlock*, which the *Greeks* would of course translate *Panopolis*; as we find *Rája-gríba* rendered *Rája-maball* in the same sense. On the banks of the *Niger* was another town of that name, called *Panagra* by PTOLEMY; and, to the north of it, we see *Timica*, *Rufikibar*, *Rufuccurum*, and *Ruficade*, which have a great affinity with TIMICA and RASICA, before mentioned as descended from PERSEUS: both *Rasícbar* and *Rasíc-gber* are *Indian* appellations of places; the first meaning the *enclosed ground*, or *orchard*; and the second (which is a corruption from the *San scrit*), the *house* of *Rasica*. Great confusion has arisen in the geography of *India*, from the resemblance in sound of *gber*, a *house*, *gerb*, a *fortress*, and the second syllable of *nagar*, a *town*; thus *Crishna-nagar* is pronounced *Kishnagber*, and *Ram-nagar*, *Ramna-gber*, both very erroneously; for *Bijnagar* was probably *Vishnu-nagar*, or *Visva-nagar*: we must beware of this, and the like, confusion, when we examine the many names of places in *Lybia* and other parts of *Africa*, which are either pure *San scrit*, or in such of the dialects as are spoken in the west of *India*.

* Plin. L. 6. c. 29.

† L. 5. c. 13, and 31. See also *Josephus*, *Strabo*, *Mela*.

Let us conclude this article with observing, that the great extent of CAPE'YA's empire appears from the *Greek* mythologists and other ancient writers; for the most considerable part of *Africa* was called *Cephenia* from his full name CAPE'YANAS; the *Persians* from him were styled *Cephenes*; and a district in the south of *Armenia* was denominated *Cephene*; a passage also in PLINY shows, that his dominion included *Ethiopia*, *Syria*, and the intermediate countries: "*Ethiopia*, says he, was worn out " by the wars of the *Egyptians*, alternately ruling and serving; it was famed, how- " ever, and powerful even to the *Trojan* wars in the reign of MEMNON; and that, " in the time of King CEPHEUS, it had command over *Syria*, and on our coast, is " evident from the fables of ANDROMEDA."

III. The following legend is taken from the *Mabácalpa*, and is there said expressly to be an *Egyptian* story. An ancient king, who was named CHATURA'YANA, because he was a perfect master of the *four Védas*, to which name VATSA was usually prefixed, because he was descended from VATSA, a celebrated sage, passed a hundred years in a dark cavern of *Crishna-giri*, or the Black Mountain, on the banks of the *Cáli*, performing the most rigorous acts of devotion: at length VISHNU, furnished GUHA'SAYA, or dwelling in caves, appeared to him, and promised him, all that he desired, *male issue*; adding, that his son should be named TAMO'VATSA, in allusion to the *darkness*, in which his father had so long practised religious austerities. TAMO'VATSA became a warlike and ambitious, but wise and devout, prince: he performed austere acts of humiliation to VISHNU, with a desire of enlarging his empire: and the God granted his boon. Having heard, that *Misra-jt'hán* was governed by NIRMARYA'DA (a name, which may possibly be the origin of NIMROD), who was powerful and unjust, he went with his chosen troops into that country, and, without a declaration of war, began to administer justice among the people, and to give them a specimen of a good king: he even treated with disdain an expostulatory message from NIRMARYA'DA, who marched against him with a formidable army, but was killed in a battle, which lasted twelve days, and in which TAMO'VATSA fought like a second PARASU RA'MA. The conqueror placed himself on the throne of *Misra*, and governed the kingdom with perfect equity: his son BA'HYAVATSA devoted himself to religion, and dwelt in a forest; having resigned his dominion to his son RUCMAVATSA, who tenderly loved his people, and so highly improved his country, that from his just revenues he amassed an incredible treasure. His wealth was so great, that he raised *three mountains*, called *Ruc-mádri*, *Rajatádri*, and *Retnádri*, or the mountain of gold, of silver, and of gems: the

author.

author says *mountains*: but it appears from the context that they were fabricks, like mountains, and probably in a pyramidal form.

TAMO'VATSA seems to be the TIMAUS of MANETHO, who says, according to Mr. BRYANT's translation, that "they once had a king, called TIMAUS, in whose reign there came on a sudden into their country, a large body of obscure people, who with great boldness invaded the land, took it without opposition, and behaved very barbarously, slaying the men, and enslaving their wives and children." The *Hindus*, indeed, say, that the invaders were headed by TAMO'VATSA, who behaved with justice to the natives, but almost wholly destroyed the king's army, as the son of JAMADAGNI nearly extirpated the *military* class; but the fragments of MANETHO, although they contain curious matter, are not free from the suspicion of errors and transpositions. The seat of TAMO'VATSA, called *Tamóvatfa-s't'bán*, seems to be the town of *Tbmuis*, now *Tmaïè*, in the district of *Tbmuites*: in later times it appears to have communicated its name to the *Phatmetick* branch, and thence to *Tamiatbis*, the present *Damiata*. We before ascertained the situation of *Crisbna-giri*; and, as to the three stupendous edifices, called *mountains*, from their size and form, there can be little or no doubt, that they were the three great Pyramids near *Misra-s't'bán*, or *Memphis*; which, according to the *Puránas* and to PLINY, were built from a motive of ostentation, but, according to ARISTOTLE, were *monuments of tyranny*. RUCMAVATSA was no tyrant to his own people, whom he *cherished*, says the *Mabácalpa*, as if they had been *his own children*; but he might have compelled the native *Egyptians* to work, for the sake of keeping them employed, and subduing their spirit. It is no wonder that authors differ as to the founders of those vast buildings; for the people of *Egypt*, says HERODOTUS, held their memory in such detestation, that they would not even pronounce their names; they told him, however, that they were built by a herdsman, whom he calls PHILITIUS, and who was a leader of the *Pális* or *Bbils* mentioned in our first section. The paramids might have been called mountains of *gold*, *silver*, and *precious stones*, in the hyperbolical style of the East; but I rather suppose, that the first was said to be of *gold*, because it was coated with yellow marble; the second of *silver*, because it had a coating of white marble; and the third of *jewels*, because it excelled the others in magnificence, being coated with a beautiful spotted marble of a fine grain; and susceptible of an exquisite polish *. The *Brábmens* never understood, that any pyra-

* Savary, V. I. p. 246.

mid in *Misra-ft' bala*, or *Egypt*, was intended as a repository for the dead ; and no such idea is conveyed by the *Mahâcalpa*, where several other pyramids are expressly mentioned as places of worship. There are pyramids now at *Bendres*, but on a small scale, with subterranean passages under them, which are said to extend many miles ; when the doors, which close them are opened, we perceive only dark holes, which do not seem of great extent, and pilgrims do no longer resort to them, through fear of mephitick air, or of noxious reptiles. The narrow passage, leading to the great pyramid in *Egypt*, was designed to render the holy apartment less accessible, and to inspire the votaries with more awe : the caves of the oracle at *Delphi*, of *TROPHONIUS*, and of *New-Grange* in *Ireland*, had narrow passages answering the purpose of those in *Egypt* and *India* ; nor is it unreasonable to suppose, that the fabulous relations concerning the grot of the *Sibyl* in *Italy*, and the purgatory of *St. PATRICK*, were derived from a similar practice and motive, which seem to have prevailed over the whole pagan world, and are often alluded to in Scripture. *M. MAILLET* has endeavoured to show, in a most elaborate work, that the founders of the great pyramid lay entombed in it, and that its entrance was afterwards closed ; but it appears, that the builder of it was not buried there ; and it was certainly opened in the times of *HERODOTUS* and *PLINY*. On my describing the great *Egyptian* pyramid to several very learned *Brâhmens*, they declared it at once to have been a temple ; and one of them asked, if it had not a communication under ground with the river *Câlî* : when I answered, that such a passage was mentioned as having existed, and that a well was at this day to be seen, they unanimously agreed, that it was a place appropriated to the worship of *PADMA'-DEVÎ*, and that the supposed tomb was a trough, which, on certain festivals, her priests used to fill with the sacred water and lotos-flowers. What *PLINY* says of the Labyrinth is applicable also to the Pyramid : some insisted, that it was the palace of a certain king ; some, that it had been the tomb of *MÆRIS* ; and others, that it was built for the purpose of holy rites ; a diversity of opinion among the *Greeks*, which shows how little we can rely on them ; and in truth, their pride made them in general very careless and superficial inquirers into the antiquities and literature of other nations.

IV. A singular story, told in the *Uttara-charitra*, seems connected with the people, whom, from their principal city, we call *Romans*. It is related, that a sage, named *A'LAVA'LA* resided on the verge of *Himâdri*, and spent his time in cultivating orchards and gardens ; his name or title implying a *small canal* or *trench*, usually dug round trees, for the purpose of watering them. He had an only son, whose name,

name, in the patronymick form, was A'LAVA'LI: the young *Bráhmén* was beautiful as CA'MADE'VA, but of an amorous and roving disposition; and, having left the house of his father, in company with some youths like himself, he travelled as far as the city of *Rómacà*, which is described as agreeably situated, and almost impreg-nably strong. The country, in which it stood, was inhabited by *Mlécb'has*, or men who speak a barbarous dialect, and their king had a lovely daughter, who happen-ing to meet A'LAVA'LI, found means to discourse with him: the young pair were soon mutually enamoured, and they had frequent interviews in a secret grove or garden; till the princess became pregnant, and, her damsels having betrayed her to the king, he gave orders for the immediate execution of A'LAVA'LI: but she had sufficient power to effect his escape from the kingdom. He returned home; but, his comrades having long deserted him, and informed his father of his intercourse with the daughter of a *Mlécb'ha*, the irritated sage refused to admit him into his mansion: he wandered, therefore, from country to country, till he arrived in *Bar-bara*, where he suffered extreme pain from the burning sands; and having reached the banks of the *Críshnà*, he performed a rigorous penance for many years, during which he barely supported life with water and dry leaves. At length MAHA'DE'VA appeared to him, assured him that his offence was forgiven, and gave him leave, on his humble request, to fix his abode on the banks of the holy river *Cáli*, restoring him to his lost sacerdotal class, and promising an increase of virtue and divine irra-diation. From the character in which the God revealed himself, he was afterwards named AGHAHE'SA, or *Lord of him who forsakes sin*; and the station of A'LAVA'LI was called *Aghabé'sa-st'bán*, or *Aghabé'sam*.

Now we find the outline of a similar tale in the ancient *Roman* history; and one would think that the *Hindu* writers wished to supply what was deficient in it. The old deities of *Rome* were chiefly rural, such as the *Fauns*, the *Sylvans*, and others who presided over *orchards* and *gardens*, like the sage A'LAVA'LA: the *Sanscrit* word *ála*, which is lengthened to *álavála*, when the trench is carried quite round the tree, seems to be the root of *άλωά*, a vineyard or an orchard, *άλων* in the same sense, *άλαα* gardens, and *άλωεύς*, a gardener or husbandman. We read of VERTUMNA with child by APOLLO, the daughter of FAUNUS by HERCULES, and those of NUMITOR and TARCHETIUS, by some unknown Gods, or at least in a supernatural manner; which may be the same story differently told: the king of the *Mlécb'has* would, no doubt, have saved the honour of his family, by pretending that his daughter had received the caresses of a rural divinity.

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The origin of *Rome* is very uncertain ; but it appears to have been at first a place of worship raised by the *Pelasgi*, under the command of a leader, who, like many others, was named **HERCULES** : by erecting other edifices round it, they made it the capital of their new western settlements ; and it became so strong a city, that the *Greeks* called it *Rhomè*, or *power itself* : but *Rómacà*, which all the *Hindus* place very far in the west, was thus denominated, according to them, from *Róma*, or wool, because its inhabitants wore mantles of *woollen cloth* ; as the *Greeks* gave the epithet of *λινοχλαίους*, from linen vesture, to the people of *Egypt* and to those eastern nations with whom they were acquainted. **PLINY** says, that the primitive name of *Rome* was studiously concealed by the *Romans* * ; but **AUGUSTINE** informs us, that it was *Febris* : probably that word should be written *Phoberis*. About two generations before the *Trojan* war, the *Pelasgi* began to lose their influence in the west, and *Rome* gradually dwindled into a place of little or no consequence ; but the old temple remained in it ; according to the rules of grammatical derivation, it is more probable that **ROMULUS** was thus named, because he was found, when an infant, near the site of old *Rome*, than that new *Rome*, which he rebuilt and restored to power, should have been so called from **ROMULUS**. A certain **ROMANUS**, believed to be a son of **ULYSSES**, is by some supposed to have built *Rome*, with as little reason as **ROMULUS** ; if, indeed, they were not the same personage : **ROMANUS**, perhaps, was the King **LATINUS**, whom **HESIOD** mentions as *very powerful* ; but, whether he was the foreign prince, whose daughter inspired **A'LAVALI** with love, I cannot pretend to decide : however, these inquiries relate to the *dwip* of *Varába* ; and the scope of our work leads us back to that of **CUSHA**.

It is reasonable to believe, that *Aghabésam* was the celebrated and ancient city of *Axum*, in the vicinity of the little *Crishná*, or the *Astaboras* of our old geographers, now called *Tacazzè* ; which, according to **MR. BRUCE**, is the largest river in *Abyssinia*, next to the *Abay* or *Nile* † : it is also held *sacred*, and the natives call it *Tenush Abay*, or *Little Nile*, a very ancient appellation ; for **STRABO** gives the name of *Tenesis* to the country bordering on that river ‡. Hence, perhaps, the ancients mistook this river for the *Nile*, to which they erroneously applied the name *Siris* ; for the true *Siris* appears to be the little *Crishná*. The *Agows*, who live towards the heads of the *Nile* and the *Tacazzè*, may have derived their name from *Aghaba* ; and we find the race of **A'LAVALI** settled as well in the isles of the Red Sea, near the

* L. 3. c. 5.

† Vol. 3. p. 157. 612.

‡ B. 16. p. 770.

Abyssinian coast, as in the country adjacent to *Aghabésum*: those isles were called *Aliou* and *Alaleæ*: and, in the districts about the *Tacazzè*, were the *Elei* or *Eleii*, furnamed *Rbizophagi*, who dwelt on the banks of the *Astapas*, and the *Astaboras*; in which denominations of islands and tribes we may trace the radical word *Ala* or *Alavála*.

The smaller *Crīṣṇà* was so denominated, either because its waters were *black*, or because it had its origin from an achievement of *CRISHNA*'; and its name *Ast'bi-matì*, was given on an occasion which has been already mentioned, but which may here be related at large from the *Bráhmānda*. When *CRISHNA* visited *Sanc'ha-dwīp*, and had destroyed the demon, who infested that delightful country, he passed along the bank of a river, and was charmed with a delicious odour, which its waters diffused in their course: he was eager to view the source of so fragrant a stream, but was informed by the natives, that it flowed from the temples of an elephant, immensely large, milk white, and beautifully formed, that he governed a numerous race of elephants, and that the odoriferous fluid, which exuded from his temples in the season of love, had formed the river, which, from his name, was called *Sanc'hanāgà*; that the *Dévas*, or inferior gods, and the *Apsarases*, or nymphs, bathed and sported in its waters, impassioned and intoxicated with the liquid perfume. The *Hindu* poets frequently allude to the fragrant juice which oozes, at certain seasons, from small ducts in the temples of the male elephant, and is useful in relieving him from the redundant moisture with which he is then oppressed; and they even describe the bees as allured by the scent, and mistaking it for that of the sweetest flowers; but though *ARRIAN* mentions this curious fact, no modern naturalist, I believe, has taken notice of it. *CRISHNA* was more desirous than before of seeing so wonderful a phenomenon, and formed a design of possessing the elephant himself; but *SANC'HANĀGA* led against him a vast army of elephants, and attacked him with such fury, that the incarnate God spent seven days in subduing the assailants, and seven more in attempting to seize their leader, whom at last he was obliged to kill with a stroke of his *Chakra*: the head of the huge beast had no sooner fallen on the ground, where it lay like a mountain, than a beautiful *Yacsha*, or Genius, sprang from the body, who prostrated himself before *CRISHNA*, informing him, that he was *VIJAYAVERDHANA*, who had once offended *MAHA'DE'VA*, and been condemned by him to pass through a mortal form, that he was supremely blessed in owing his deliverance to so mighty a God, and would instantly, with his permission, return to his appeased master. The victor assented, and left the field of battle; where, from the bones of
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the slain elephants, rose a lake, thence named *Ast'bitarāga*, from which flowed the river *Ast'himatī*, whose hallowed waters, adds the author of the *Purāna*, remove sin and worldly affections: *ast'bi*, a bone, pronounced *ost'bi* in some provinces, is clearly the Greek ὀστρεον, and its derivative *ast'himat* becomes *ast'himān*, in the first case masculine; whence the river is by some old geographers called *Aistamenos*; for the names of rivers, which are feminine for the most part in *Sanscrit*, are generally masculine in the western languages. We find it named also *Astaboras* and *Astabaras*; for *Ast'bivara* means the *most excellent bone*, or ivory; and the *Adiabaræ*, who lived, says PLINY, on its banks, took their name, perhaps, from the river, the word *ast'bi* being pronounced *āti* and *ādi* in some vulgar dialects; as the *Sanscrit* word *basti*, an elephant, is corrupted into *bāti*; *Mareb*, or *Sanc'hānāgā*, was anciently named *Astofabas*, or *Astufobas*, possibly from *Hastisrava*, or *flowing from an elephant*, in allusion to the legend before related; and one would have thought *Hastimatī*, or *Hastimān*, a more rational appellation for the *Tacazzè*, since there are in fact many elephants in the country which it waters. We must beware of confounding SANC'HANAGA or the *Elephant of Sanc'ha-dwīp*, with SANC'HA-NAGA, or the *Sbell-serpent*, of whom we have already given a sufficient account, and concerning whom we have nothing to add, except that the people of the mountains, now called *Hubbāb*, have legendary traditions of a snake, who formerly reigned over them, and conquered the kingdom of *Sirè*.

V. Concerning the river *Nandā*, or the *Nile of Abyssinia*, we meet with the following tales in the *Padmacōsha*, or *Treasure of Lotos-flowers*. A king named APYA'YANA, finding himself declining very low in the vale of years, resigned his throne to APA'MVATSA, his son, and repaired with his wife SA'RMADA' to the hermitage of a renowned and holy *Brāhmen*, whose name was MRICA, or MRICU, intending to consult him on the mode of entering into the *Aśrama*, or order, called *vānaprest'ha*: they found only the son of the sage, named *Mārca*, or *Mārcava*, who gave them full instructions, and accompanied them to the hilly parts of the country, where he advised them to reside. When they arrived at their destined retreat, the *Dévas*, pleased with their piety, scattered *flowers* on them like rain, whence the mountains were called *Puṣhpavarsha*, according to the derivation of the Mythologists; but *Puṣhpavarsham*, which is the name of the country round them, may signify no more than the region of flowers: the Gods were not satisfied with a shower of blossoms, and when the first ceremonies were performed at *Puṣkpa-verṣa-ṣt'hān*, they rained also tears of joy, which being mingled with those of the royal pair and

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the pious hermit, formed the river *Nandà*, whose waters hastened to join the *Cālì*, and their united streams fell at length into the *Sanc'hábdhi*, or sea of *Sanc'ba*. The goddesses who presided over the *Nandà*, passed near the mansion of a sage, named *SA'NTAPANA*, a child of *SANTAPANA*, or the Sun, who ran with delight to meet her and conducted her near his hermitage, where *Dévatás* and *Rishis* were assembled to pay her divine honours: they attended her to the place of her confluence with the great *Crishná*, near which was afterwards built *Sántapana-ś'hán*, and there the sage fixed a *linga*, or emblem of *SA'NTAPANA'SIVA*, to which prostrations must be made, after prescribed ablution in the hallowed waters, by all such as desire a seat in the mansions of *Swerga*.

The mountains and country of *Pushpavarsha* seem to be those round the lake *Dembea*, which immediately after the rains, says Mr. BRUCE, look, from the blossoms of the *Wanze*, as if they were covered with white linen or new fallen snow. *DIODORUS* calls them *Pseuaras* in the oblique case; and *STRABO*, *Psebaos*; the lake itself being also named *Pseboa*, or *Psebo*, from the Sanscrit word *pushpa*. By one of the old *Hindu* writers, the river *Nandá* is placed between *Barbara* and *Cusha-dwip*; by another, in *Sanc'ba-dwip* itself; but this is easily reconciled, for, according to the more ancient division of the earth, the exterior *dwip* of *CUSHA* was considered as a part of *Sanc'ba-dwip*; though, in the new division, it is just the reverse; all agree, that the *Nanda* runs, in great part of its course, from south to north; and hence many *Bráhmens* draw a conclusion, which by no means follows, that the *Cālì*, which it joins, must flow from west to east. *Sántapana-ś'hán*, I conceive to have stood at the *prayága* or *trivénì*, that is, at the confluence of the smaller *Crishná* with the united waters of the *Nandá* and the *Cālì*; and I suppose it to have been the *APOLLINIS oppidum* of *PLINY**, or the capital of the *Adiabaræ*, called also *Megabari*, whom I have already mentioned: for *SA'NTAPANA* was an *avátar*, or incarnate form of the Sun, and the country round is *asrama*, or hermitage, is known to this day by the name of *Kuara*, which means the Sun, according to Mr. BRUCE, and which is no other than the Sanscrit word *Cwára*, or going round the earth: the *Nandá*, I presume, or *Nile* of *Abyssinia*, was also named the river of *SA'NTAPANA*, whence the *Greeks* first made *Astapún* in the oblique case, and thence, as usual, formed the nominative *Astapus*. According to the *Puránas*, the *Nandá*, and the Little *Crishná* unite, before they fall into the *Cālì*; and *PTOLEMY* also supposes, that they join

* Lib. 6. cap. 30.

near the southern border of *Meroe*, and then are divided, one branch flowing eastward, and another westward, into the main body of the *Nile*: that inquisitive geographer acknowledges himself indebted for much useful information to many learned *Indians*, whom he knew at *Alexandria*, and those *Hindus* were probably acquainted with the *Purânas*; but ERATOSTHENES was better informed than PTOLEMY, with respect to the rivers in question; and the mistake of the *Hindu* authors may have arisen from a fact, mentioned by Mr. BRUCE, that, during the rains, the floods divide themselves, part running westward into the *Nile*, part eastward into the *Taccazzè*. It should not be omitted, that the country of the sage MRICU and his son MARCAVA, seems to be that of the *Macrobii*, now inhabited by the *Gonguas*, *Gubas*, and *Shangallas*; the *Greeks*, according to their custom, having changed *Marcaba* into *Macrobios*, or long-lived; though that country, says the *Abyssinian* traveller, is one of the most unhealthy on earth: indeed, if MARCANDE'YA, the son of MRICANDU, be the same person with MARCAVA, he was truly *Macrobios*, and one of the nine long-lived sages of the *Purâns*.

VI. The next legend is taken from the *Mahâcalpa*; and we introduce it here as illustrative of that, which has been related in the second section, concerning the two *Indian* Gods of Medicine, to whom some places in *Egypt* were consecrated.

A most pious and venerable sage, named RISHI'CE'SA, being very far advanced in years, had resolved to visit, before he died, all the famed places of pilgrimage; and, having performed his resolution, he bathed at last in the sacred water of the *Gâli*, where he observed some fishes engaged in amorous play, and reflecting on their numerous progeny, which would sport like them in the stream, he lamented the improbability of leaving any children: but since he might possibly be a father, even at his great age, he went immediately to the king of that country, HIRANYAVERNA, who had fifty daughters, and demanded one of them in marriage. So strange a demand gave the prince great uneasiness; yet he was unwilling to incur the displeasure of a faint, whose imprecations he dreaded: he, therefore, invoked HERI, or VISHNU, to inspire him with a wife answer, and told the hoary philosopher, that he should marry any one of his daughters, who of her own accord should fix on him as her bridegroom; the sage, rather disconcerted, left the palace; but, calling to mind the two sons of ASWINI', he hastened to their terrestrial abode, and requested that they would bestow on him both youth and beauty: they immediately conducted him to *Abhimatada*, which we suppose to be *Abydos* in Upper *Egypt*; and, when he had bathed in the pool of *Rûpayauvana*, he was restored to the flower of his age with

with the graces and charms of CA'MADE'VA. On his return to the palace, he entered the secret apartments, called *antapúra*, where the fifty princesses were assembled; and they were all so transported with the vision of more than human beauty, that they fell into an *ecstasy*, whence the place was afterwards named *Móba-si'bán*, or *Móbana*, and is, possibly, the same with *Mobannan*: they no sooner had recovered from their trance, than each of them exclaimed, that she would be his bride; and, their altercation having brought HIRANYAVERNA into their apartment, he terminated the contest, by giving them all in marriage to RISHICÉ'SA, who became the father of a hundred sons; and, when he succeeded to the throne, built the city of *Suc'harverddhana*, framed *vimánas*, or celestial, self-moving cars, in which he visited the gods, and made gardens abounding in delights, which rivalled the bowers of INDRA; but, having gratified the desire which he formed at *Matfyaśangama*, or the place where the *fish* were *assembled*, he resigned the kingdom to his eldest son HIRANYAVRIDHA, and returned in his former shape to the banks of the *Cálì*, where he closed his days in devotion.

VII. A very communicative *Pándit* having told me a short story, which belongs to the subject of this section, it seems proper to mention it, though I do not know from what *Purán* it is taken. ARUNA'TRI, the fifth in descent from ATRI before named, was performing religious rites on the *Dévánica* mountains, near the site of the modern *Cábul*, when a hero, whose name was TULYA, desired his spiritual advice; informing him, that he had just completed the conquest of *Barbara*, subdued the *Syámamuc'has*, who lived to the east of the river *Cálì*, and overcame the *Sanc'-báyanas*, but that so great an effusion of blood, for the sake of dominion and fame, had stained his soul with a sinful impurity, which he was desirous of expiating: the Sage accordingly prescribed a fit penance, which the conqueror performed in the interior *Cusba-dwíp*. A certain THOULES, or TAULES, is mentioned in *Egyptian* history as a son of ORUS, the Shepherd.

VIII. In the first part of this essay, we intimated an opinion, that *Ugra-si'bán* was a part of *Memphis*, and that UGRA, whom the *Hindus* make a king of *Dwáracá* in *Gujjara-dés* or *Gujarát*, was the UCHOREUS, or OGDOS, of the *Greeks*; nor is it impossible, that VEXORIS, who is represented as a great conqueror, was the same person with UCHOREUS. The story of UGRA, or UGRASE'NA, we find in a book, entitled, *Amaréswara-sangraba-tantra*; from which the following passage is verbally translated: "UGRASE'NA, chief of kings, was a bright ornament of the *Yádava* " race; and, having taken CRISHNA for his associate, he became sovereign of all
" the

“ the *Dwipas*; the *Devás*, the *Yacshas*, and the *Rácshasas*, paid him tribute again
 “ and again; having entered *Cussha-dwíp*, and vanquished its princes, elate with
 “ pride, the monarch raised an image of ISWARA on the banks of the river *Cálì*,
 “ whence the God was famed by the title of UGRE'SWARA, and the place was called
 “ *Ugra-s' bhána*.”

IX. The following legend from the *Uttarac'banda* is manifestly connected with the oldest history and mythology in the world. INDRA, king of *Méru*, having slain a *Daitya* of the sacerdotal class, was obliged to retire from the world, in order to perform the penance ordained for the crime of *Brahmahatyá*, or the murder of a *Bráhmén*: his dominions were soon in the greatest disorder, and the rebel *Daityas* oppressed the *Dévas*, who applied for assistance to NAHUSA, a prince of distinguished virtues, whom they unanimously elected king of their heavenly mansions, with the title of DE'VANAHUSHA. His first object was to reduce the *Daityas* and the sovereigns of all the *dwíps*, who had shaken off their allegiance; for which purpose he raised an immense army, and marched through the interior *Cussha-dwíp*, or *Iran* and *Arabia*, through the exterior *dwíp* of CUSHA, or *Ethiopia*, through *Sanc'ha-dwíp* or *Egypt*, through *Varáha-dwíp*, or *Europe*, through *Chandra-dwíp*, and through the countries now called *Siberia* and *China*: when he invaded *Egypt*, he overthrew the combined forces of the *Cutíla-céfas* and *Syáma-muc'has*, with so terrible a carnage, that the *Cálì* (a word which means also the *female devourer*), was reported to have swallowed up the natives of *Egypt*, whose bodies were thrown into her stream. During his travels he built many places of worship, and gave each of them the title of *Dévanábusham*: the principal rivers of the countries through which he passed, were also distinguished by his name; NAHUSHA being an appellation of the *Nile*, of the *Chacshu*, or *Oxus*, of the *Varáha* or *Ister*, and of several others. He returned through *India* to *Méru*, but unhappily fell in love with SACHI' or PULO'MAJA', the consort of INDRA, who secretly resolved on perfect fidelity to her lord, and, by the advice of VRIHASPATI, regent of the planet *Jupiter*, and preceptor of the *Dévas*, promised NAHUSHA to favour his addressee, if he would visit her in a *dólà*, or palanquin, carried on the shoulders of the holiest *Bráhmans*: he had sufficient influence to procure a set of reverend bearers; but such was the slowness of their motion, and so great was his eagerness to see his beloved, that he said, with impatience, to the chief of them, *Serpe, Serpe*, which has precisely the same sense in *Sanskrit* and in *Latin*; and the sage, little used to such an imperative, answered, “ Be thyself a “ serpent.” Such was the power of divine learning, that the imprecation was no sooner

sooner pronounced, than the king fell on the earth in the shape of that large serpent which is called *Ajágara* in *Sanscrit*, and *Boa* by naturalists: in that state of humiliation he found his way to the *Black Mountains*, and glided in search of prey along the banks of the *Cálì*; but, having once attempted to swallow a *Brábmén* deeply learned in the *Védas*, he felt a scorching flame in his throat, and was obliged to disgorge the sage alive, by contact with whom, his own intellects, which had been obscured by his fall, became irradiated, and he remembered with penitence his crime and its punishment. He ceased from that day to devour human creatures, and, having recovered his articulation, together with his understanding, he wandered through the regions adjacent to the *Nile*, in search of some holy *Brábmén* who could predict the termination of his deserved misery: with this view he put many artful questions to all whom he met, and at length received information, that he would be restored to his pristine shape by the sons of *PANDU*. He had no resource, therefore, but patience, and again traversed the world, visiting all the temples and places of pilgrimage, which he had named from himself in his more fortunate expedition: at last he came to the snowy mountains of *Himálaya*, where he waited with resignation for the arrival of the *PANDAVAS*, whose adventures are the subject of *VYASA*'s great Epic poem.

This fable of *DE'VA-NAHUSHA*, who is always called *DEO-NAUSH*, in the popular dialects, is clearly the same in part with that of *DIONYSIUS*, whether it allude to any single personage, or to a whole colony; and we see in it the origin of the *Grecian* fiction, that of *DIONYSIUS* was sewed up in the *Méros*, or *thigh*, of *JUPITER*; for *Méru*, on which *DE'VA-NAHUSHA* resided for a time, was the seat of *INDRA*, or *ZEUS Ombrios*: by the way, we must not confound the celestial *Méru* with a mountain of the same appellation near *Cábul*, which the natives, according to the late Mr. *FORSTER*, still call *Mercob*, and the *Hindus*, who consider it as a splinter of the heavenly mountain, and suppose, that the gods occasionally descend on it, have named *Méru-sringa*. Names are often so strangely corrupted, that we suspect *DEO-NAUSH* to be also the *Scythian* monarch, called *TANAUS* by *JUSTIN* *, and *TAUNASIS* by *JORNANDES*, who conquered *Asia*, travelled into *Egypt*, and gave his name to the river, otherwise called *Iaxartes*; we have already mentioned *Nous* as a *Greek* name of the *Nile*, and the *Danube* or *Ister* was known also by that of *Danufius* or *Tanais* †; in which points the *Puránas* coincide with *HORUS*, *APOLLO*, *EUSTATHIUS*, and *STRABO*.

* Lib. 1. cap. 1. and Lib. 2. cap. 36.

† *Eustath.* on *Dionys.* *Perieg.* v. 298.

X. The author of the *Viśva-pracāśa* gives an account of an extraordinary personage, named DARDA'NĀSA, who was lineally descended from the great JAMA-DAGNI: his father, ABHAYA'NĀS lived on the banks of the river *Vitastā*, where he constantly performed acts of devotion, explained the *Vēdas* to a multitude of pupils, and was chosen by CHITRARAT'HA, who though a *Vaisya*, reigned in that country, as his *guru*, or spiritual guide. Young DARDA'NĀSA had free access to the secret apartments of the palace, where the daughter of the king became enamoured of him, and eloped with him through fear of detection, carrying away all the jewels and other wealth that she could collect: the lovers travelled from hill to hill, and from forest to forest, until they reached the banks of the *Cālī*, where their property secured them a happy retreat. PRAMODA, a virtuous and learned *Brāhmen* of that country, had a beautiful daughter, named PRAMADA', whom DARDA'NĀSA, with the assent of the princess, *took by the hand*, that is *married*, according to the rites prescribed in the *Vēda*; and his amiable qualities gained him so many adherents, that he was at length chosen sovereign of the whole region, which he governed with mildness and wisdom. His ancestry and posterity are thus arranged:

JAMADAGNI.

Jāmadagni,

Prāchīnās,

Tāmranās,

Nāshtrānās,

Bhūnjānās,

Craunchānās,

Abhayājātānās,

Abhayānās,

DARDA'NĀS,

Vainabhrītānās,

Tēcānās,

Bhābānās,

Traicāyanyās,

Avadātānās.

The river, here named *Vitastā*, and vulgarly *Jelam*, is the *Hydaspes* of the *Greeks*: a nation who lived on its banks, are called *Dardaneis*, by DIONYSIUS*; and the *Grecian* DARDANUS was probably the same with DARDA'NĀSA, who travelled into *Egypt* with many associates. We find a race of *Trojans* in *Egypt*; a mountain, called anciently *Troicus*, and now *Tora*, fronted *Memphis*; and at the foot of it was a place actually named *Troja*, near the *Nile*, supposed to have been an old settlement of *Trojans*, who had fled from the forces of MENELAUS; but

* Perieg. v. 11—38.

CTESIAS, who is rather blameable for credulity that for want of veracity, and most of whose fables are to be found in the *Puráns*, was of a different opinion; for he asserted, according to DIODORUS of *Sicily*, that *Troja* in *Egypt* was built by *Trojans*, who had come from *Assyria* under the famed SEMIRAMIS *, named SAMIRAMA by the ancient *Hindu* writers; and this account is confirmed by HERODOTUS, who says, that a race of DARDANIANS were settled on the banks of the river *Gyndes*, near the *Tigris* †, where, I imagine, DARDANASA and his associates first established themselves, after their departure from India ‡. EUSTATHIUS, in his comment on the *Periegesis*, distinguishes the *Dardaneis* from the *Dardanoi*, making the first an *Indian*, and the second a *Trojan*, race ||; but it seems probable, that both races had a common origin: when HOMER gives the *Trojans* the title of *Mero-pians*, he alludes to their eastern origin from the borders of *Méru*; the very name of King MEROPS being no other than MERUPA, or sovereign of that mountainous region.

XI. We come now to a person of a different character; not a prince or a hero, but a bard, whose life is thus described in the *Vis'vasára*. On the banks of the *Cálá* dwelt a *Bráhmen*, whose name was LE'C'HA'YANA's; a sage rigorously devout, skilled in the learning of the *Védas*, and firmly attached to the worship of *HERI*; but, having no male issue, he was long disconsolate, and made certain oblations to the God, which proved acceptable; so that his wife SA'NCRITI became pregnant, after she had tasted part of the *charu*, or cake of rice, which had been offered: in due time she was delivered of a beautiful boy, whom the *Bráhmens*, convened at the *játacarma*, or ceremony on his birth, unanimously agreed to name *HERIDATTA*, or given by the divinity. When the *sanścára*, or institution of a *Bráhmen*, was completed, by his investiture with the sacerdotal string, and the term of his studentship in the *Véda* was past, his parents urged him to enter into the *second* order, or that of a married man; but he ran into the woods, and passed immediately into the *fourth* order, disclaiming all worldly connections, and wholly devoting himself to *VISHNU*. He continually practised the *samádbiyóga*, or union with the deity by contemplation; fixing his mind so intensely on GOD, that his vital soul seemed concentrated in the *Brahma-randhra*, or pineal gland, while his animal faculties were suspended, but his body still uncorrupted, till the reflux of the spirits put them again in

* B. 2.

† B. I. c. 189.

‡ Iliad. Y. v. 215.

|| Οι Δαρδανίαις Ἰνδοὶ ἱδοῖ, οἱ μάλιστα Δάρδαροι, Τρωϊκόν. Eustath. on Dionys. v. 11. 38.

motion: a state, in which the *Hindus* assert, that some *Yógis* have remained for years, and the fanciful gradations of which are minutely described in the *Yóga-sástra*, and even delineated in the figures called *Shatchakra*, under the emblems of lotos flowers, with different numbers of petals, according to the supposed stations of the soul, in her mystical ascent. From this habit of *merging* all his vital *spirits*, in the idea of the Supreme Being, HERIDATTA was named LÍNA'SH; a name which the people repeated with enthusiasm; and he became the *guru*, or spiritual director, of the whole nation: he then rambled over the earth, singing and dancing, like a man in a phrensy; but he sang no hymns, except those which himself had composed; and hence it came that all older hymns were neglected, while those of LINA'SU alone were committed to memory from his lips, and acquired universal celebrity. Other particulars of his life are mentioned in the *Puránas*, where fragments of his poetry are, most probably, cited: I have no doubt, that he was the same person with the LINUS of the *Greeks*; and, if his hymns can be recovered, they will be curious at least, if not instructive. LINA'SU was the eighth in descent from the sage BHARADWA'JA, whom some call the son of VRIHASPATI, or the regent of JUPITER: he is said to have married at an advanced age, by the special command of HERI, and five of his descendants are named in the following pedigree:

BHARADWA'JA',

Cáris'háyanás,

Cshámyáyanás,

Gauriváyanás,

Cárunáyanás, 5

Bhrityáyanás,

Sic'háyanás,

Lec'háyanás,

LÍNA'SU, or Línáyanás,

Caundáyanás, 10

Másháyanás,

Cámacáyanás,

Sanc'baláyanás,

Cásucáyanás.

XII. The tale of LUBDHACA relates both to the morals and astronomy of the *Hindus*, and is constantly recited by the *Bráhmens* on the night of SIVA, which falls on the *fourteenth* of *Mágha*, or of *P'hálgun*, according as the month begins from the opposition or the conjunction.

LUBDHACA was descended from the race of *Palli*, and governed all the tribes of *Cirátas*: he was violent and cruel, addicted passionately to the pleasures of the chase, killing innocent beasts without pity, and eating their flesh without remorse. On the *fourteenth* lunar day of the dark half of *P'hálgun*, he had found no game in the forest;

forest ; and at sun-set, faint with hunger, he roved along the banks of the *Crishná*, still earnestly looking for some animal whom he might shoot : at the beginning of night he ascended a *Bilva-tree*, which is consecrated to MAHA'DE'VA, whose emblem had been fixed under it, near a spring of water ; and, with a hope of discerning some beast through the branches, he tore off the leaves, which dropped on the *linga*, sprinkling it with dew ; so that he performed sacred rites to the God, without intending any act of religion. In the first watch of the night a large male antelope came to the spring ; and LUBDHACA, hearing the sound which he made in drinking, fixed his arrow, and took aim at the place whence the noise proceeded ; when the animal, being endued by SIVA with speech and intellect, told him, that he had made an assignation with a beloved female, and requested him to wait with patience till the next day, on which he promised to return ; the mighty hunter was softened, and, though nearly famished, permitted the antelope to depart, having first exacted an oath, that he would perform his engagement. A female antelope, one of his consorts, came in the second watch to drink at the spring ; who was in like manner allowed to escape, on her solemn promise, that she would return when she had committed her helpless young to the care of a sister ; and thus, in the third and fourth watches, two other females were released for a time, on pretences nearly similar, and on similar promises. So many acts of tender benevolence, in so trying a situation, and the rites to MAHA'DE'VA, which accompanied them from watch to watch, though with a different intention, were pleasing to the God, who enlightened the mind of LUBDHACA, and raised in him serious thoughts on the cruelty of slaying the innocent for the gratification of his appetite : at early dawn he returned to his mansion, and, having told his family the adventure of the night, asked whether, if he should kill the antelope, they would participate his guilt, but they disclaimed any share in it, and insisted, that, although it was his duty to provide them with sustenance, the punishment of sin must fall on him solely. The faithful and amiable beast at that moment approached him, with his three consorts and all his little ones, desiring to be the first victim ; but LUBDHACA exclaimed, that he would never hurt his friend and his guide to the path of happiness, applauded them for their strict observance of their promises, and bade them return to the woods, into which he intimated a design of following them as a hermit : his words were no sooner uttered, that a celestial car descended with a messenger from SIVA, by whose order the royal convert and the whole family of antelopes were soon wafted, with radiant and incorruptible bodies, to the starry regions, fanned by heavenly nymphs, as they rose,
and

and shaded by genii, who held umbrellas, while a chorus of ethereal songsters chanted the praises of tenderness to living creatures, and a rigorous adherence to truth. LUBDHACA was appointed regent of *Sirius*, which is called the *yóga* star; his body is chiefly in our Greater Dog, and his arrow seem to extend from β in that asterism to α in the knee of ORION, the *three* stars in whose neck are the lunar mansion *Mrigashiras*, or the head of the male antelope, who is represented looking round at the archer; the *three* stars in the belt are the females, and those in the sword, their young progeny; MAHA'DE'VA, that he might be near his favourites, placed himself, it is said, in the next lunar mansion *Ardra*, his head being the bright star in the shoulder of ORION, and his body including those in the arm, with several smaller stars in the galaxy. The son of LUBDHACA succeeded him on earth, and his lineal descendants yet reign, says the author of the *Purán*, on the delightful banks of the *Crishná*.

This legend proves a very material fact, that the *Pallis* and *Cirátas* were originally the same people: it seems to indicate a reformation in some of the religious tenets and habits of the nations bordering on the *Crishná*, and the whole appears connected with the famous *Egyptian* period regulated by the heliacal rising of *Sirius*: the river here mentioned I suppose to be the smaller *Crishná*, or the *Siris* of the ancients, so named, as well as the province of *Siré*, from the word *Seir*, which means a *dog*, says Mr. BRUCE, in the language of that country. The constellations of ORION and the two Dogs point at a similar story differently told; but the name of LUBDHACA seems changed by the *Greeks* into LABDACUS; for since, like the ancient *Indians*, they applied to their new settlements, the history and fables of their primitive country, they represent LABDACUS as the grandson of CADMUS, the son of POLYDORUS (for so they were pleased to disguise the name), and the father of LAIUS: now CADMUS, as we have shown, as CARDAME'SWARA, or MAHA'DE'VA, and POLYDORUS, or POLYDOTUS, was PALLIDATTA, the gift of the national God PALLI or NAIRRIT. As to LABDACUS, he died in the flower of his age, or disappeared, say the *Hindus*, and was translated into heaven; but, during his minority, the reigns of government were held by LYCUS, a son of NYCTEUS, or NACTUNCCHARA: he was succeeded by LAIUS, which, like *Páli*, means a *herdsman*, or *shepherd*, for $\lambda α ῖ ᾱ$, $\lambda ε ῖ ᾱ$, and $\lambda ε ῖ η$ signify herds and flocks; and thus we find a certain LAIUS, who had a son BUCCOLION, and a grandson PHIALUS, both which names have a reference to *pasture*, for the shepherds were called by the *Greeks* $\alpha γ ε λ α ῖ ο ι$, and AGELAIA, was synonymous with PALLAS. The son of LAIUS was
CEDIPUS,

ŒDIPUS, with whose dreadful misfortune, as we intimated in the first section, the *Hindus* are not unacquainted, though they mention his undesigned incest in a different manner, and say, that YO'GABRASHTA', whom they describe as a flagitious woman, entered into the service of some cowherds, after the miserable death of her son MAHA'SU'RA, or the *Great Hero*, by LINA'SU, the son of LUBDHACA, who was descended from PALLI: the whole story seems to have been *Egyptian*, though transferred by the *Greeks* to *Thebes* in their own country.

XIII. The last piece of history, mixed with an astrological fable, which I think it useful to add, because it relates to *Barbara*, is the legend of DA'SA-RAT'HA, or the monarch, *whose car had borne him to ten regions*, or to the *eight points*, the zenith, and the nadir: it is told both in the *Bhawishya Purán* and the *Bráhmānda*. He was descended from SU'RYA, or HE'LI, which is a name of the Sun in *Greek* and in *Sanscrit*: one of his ancestors, the great RAGHU, had conquered the seven *dwipas*, or the whole earth, and VISHNU became incarnate in the person of his son RA'MA-CHANDRA. It happened in the reign of DASARAT'HA, that SANI, having just left the lunar mansion, *Crittica*, or the *Pleiads*, was entering the *Hyads*, which the *Hindus* call *Róbinì*, and that passage of SATURN is distinguished by the appellation of *Sacata-bhēda*, or the *section of the wain*: an universal drought having reduced the country to the deepest distress, and a total depopulation of it being apprehended, the king summoned all his astrologers and philosophers, who ascribed it solely to the unfortunate passage of the malignant planet; and VASISHT'HA added, that, unless the monarch himself would attack SANI, as he strongly advised, neither INDRA nor BRAHMA' himself could prevent the continuance of the drought for twelve years. DASARAT'HA that instant ascended his miraculous car of pure gold, and placed himself at the entrance of *Róbinì*, blazing like his progenitor the Sun, and drawing his bow, armed with the tremendous arrow *Sanbárastra*, which attracts all things with irresistible violence: SANI, *the slow-moving child of SU'RYA*, dressed in a blue robe, crowned with a diadem, having four arms, holding a bow, a spiked weapon, and a cimeter (thus he is described in one verse), discerned his formidable opponent from the last degree of *Crittica*, and rapidly descended into the land of *Barbara*, which burst into a flame, while he concealed himself far under ground. The hero followed him; and his legions, marching to his assistance, perished in the burning sands; but SANI was attracted by the magnetick power of the *Sanbárastra*, and, after a vehement conflict, was overpowered by DASARAT'HA, who compelled him to promise, that he never more would attempt to pass through the wain of *Róbinì*:
the

the victor then returned to his palace, and the regent of the planet went to SANI-
ſ'hán, in *Barbara*, while the ground, on which he had fought, assumed a red hue.
 The *Hindu* astrologers say, that SANI has hitherto performed his promise, but that,
 in four or five years, he will approach so nearly to *Róbiní*, that great mischief may
 be feared from so noxious a planet; who has nothing in this age to apprehend from
 a hero in a self-moving car with an irresistible weapon: they add, that MANGALA,
 or *Mars*, the child of PRIT'HIVI, has also been prevented from traversing the wag-
 gon of *Róbiní*, but that VRIHASPATI, SUGRA, and BUDHA, or *Jupiter*, *Venus*, and
Mercury, pass it freely and innocently, while it is the constant path of SO'MA, or the
 Moon, of whom the beautiful *Robiní*, or *Aldeberán*, is the favourite consort.

The history of DASARAT'H being immediately connected with that of RA'MA-
 CHANDRA, and consequently of the first colonies who settled in *India*, it may pro-
 perly conclude this third section, which has been confined to the demigods and
 sages, who distinguished themselves in the countries bordering on the *Nile* of *Ethi-*
opia; and, whatever may be thought of some etymological *conjectures*, which I have
 generally confirmed by facts and circumstances, it has been proved, I trust, by posi-
 tive evidence, that the ancient *Indians* were acquainted with those countries, with the
 course of that celebrated river, and with *Misra*, or *Egypt*.

REMARKS ON THE PRECEDING ESSAY.

By the PRESIDENT.

SINCE I am persuaded, gentlemen, that the learned Essay on *Egypt* and the *Nile*,
 which you have just attentively heard, has afforded you equal delight with that
 which I have myself received from it, I cannot refrain from endeavouring to increase
 your satisfaction, by confessing openly, that I have at length abandoned the greatest
 part of that natural distrust and incredulity, which had taken possession of my mind,
 before I had examined the sources from which our excellent associate, Lieutenant
 WILFORD, has drawn so great a variety of new and interesting opinions. Having
 lately read again and again, both alone and with a *Pandit*, the numerous and ori-
 ginal passages in the *Puránas* and other *Sanscrit* books, which the writer of the dis-
 sertation adduces in support of his assertions, I am happy in bearing testimony to
 his perfect good faith and general accuracy, both in his extracts and in the transla-
 tions.

tions of them; nor should I decline the trouble of annexing literal versions of them all, if our third volume were not already filled with a sufficient store of curious, and (my own part being excepted) of valuable, papers: there are two, however, of Mr. WILFORD's extracts from the *Purânas*, which deserve a verbal translation; and I, therefore, exhibit them word for word, with a full conviction of their genuineness and antiquity.

The first of them is a little poem, in the form of the hymns ascribed to ORPHEUS, in praise of the *Nîlá*, which all the *Bráhmens* allow to be a sacred river in *Cuska-dwîp*, and which we may confidently pronounce to be the *Nile*: it is taken from the *Scanda-purân*, and supposed to be the composition of VISVA'MITRA, the father of SACONTALA', with whose life you are well acquainted:

1. "*Cálî*, *Crishná*, likewise *NÍ'LA'*; '*Syamá*, *Cálá*, and *Asítá* also; '*Anja-nábhá* and '*Syámala*; '*Mécbacà* too and '*Pávanî*;

2. "*Aghabá* and '*Mócsbaddá*,—these twelve prosperous names of the *Cálicà*, in " whatever receptacle of water.

3. " A man shall repeat at the time of bathing, he shall gain the fruit of an ablu- " tion in the *Cálî*. No stream on earth is equal to the river *Cálî* as a giver of in- " crease to virtue.

4. " He, who has bathed in her *stream*, is wholly released from the murder of a " *Bráhmén* and every other crime: they, who have been offenders in the highest " degree, *are purified by her*, and consequently they who have committed rather in- " ferior sins.

5. " They, who have arrived on the bank of the river *Cálî*, are indubitably re- " leased from sin; and even by a sight of the river *Cálî*, an assemblage of crimes is " quite effaced.

6. " But to declare the fruit gained by bathing in her *waters*, is impossible even " for BRAHMA'. These delightful and exquisite names whatever men

7. " Shall repeat, even they are *considered as* duly bathed in the river *Cálî*: con- " stantly, therefore, must they be repeated with all *possible* attention."

Here I must observe, that the couplets of the *Véda*, which our learned friend has quoted at the beginning of his Essay, are in a similar strain to those of VISVA'-MITRA: nor have I a doubt of their authenticity, because the fifth line is clearly in a very ancient dialect, and the original ends in the manner of the *Hindu* scripture, with a repetition of the two last words; but, either we must reject a redundant syllable

syllable in the concluding verse (though such a redundancy often occurs in the *Vêda*), or we must give a different version of it. The line is,

Sitâsitâsamâdyôgât param yâti nanivertatè;

which may thus be rendered: "By whose union of white and dark azure waters, a mortal, *who bathes in them*, attains the Most High, *from whose presence* he returns not to this terrestrial mansion."

Of the second passage, from the *Padma-purân*, the following translation is minutely exact:

1. "To SATYAVARMAN, that sovereign of the whole earth, were born three sons; the eldest SHERMA; then C'HARMA: and, *thirdly*, JYA'PETI by name:

2. "They were all men of good morals, excellent in virtue and virtuous deeds, skilled in the use of weapons to strike with or to be thrown; brave men, eager for victory in battle.

3. "But SATYAVARMAN, being continually delighted with devout meditation, and seeing his sons fit for dominion, laid upon them the burden of government.

4. "Whilst he remained honouring and satisfying the gods, and priests, and kine. One day by the act of destiny, the king, having drunk mead,

5. "Became senseless and lay asleep naked: then was he seen by C'HARMA, and by him were his two brothers called,

6. "To whom he said: What now has befallen? In what state is this our fire? By those two was he hidden with clothes, and called to his senses again and again.

7. "Having recovered his intellect, and perfectly knowing what had passed, he cursed C'HARMA, saying: Thou shalt be the servant of servants;

8. "And, since thou wast a laugher in their presence, from laughter shalt thou acquire a name. Then he gave to SHERMA the wide domain on the south of the snowy mountains,

9. "And to JYA'PETI he gave all on the north of the snowy mountain; but he, by the power of religious contemplation, attained supreme bliss."

Now you will probably think, that even the conciseness and simplicity of this narrative are excelled by the *Mosaick* relation of the same adventure; but, whatever may be our opinion of the old *Indian* style, this extract most clearly proves, that the SATYAVRATA, or SATYAVARMAN, of the *Purâns*, was the same personage

(as it has been asserted in a former publication), with the NOAH of Scripture, and we consequently fix the utmost limit of *Hindu* Chronology; nor can it be with reason inferred, from the identity of the stories, that the divine legislator borrowed any part of his work from the *Egyptians*: he was deeply versed, no doubt, in all their learning, such as it was; but he wrote what he knew to be truth itself, independently of their tales, in which truth was blended with fables; and their age was not so remote from the days of the patriarch, but that every occurrence in his life might naturally have been preserved by traditions from father to son.

We may now be assured, that the old *Hindus* had a knowledge of *Misr* and of the *Nile*; that the legends of CEPHEUS and CASSIOPEIA (to select one example out of many), were the same with those of CAPE'YA and CA'SYAPI'; that PERSEUS and ANDROMEDA were no other than PA'RASICA and ANTARMADA'; and that Lord BACON, whom, with all his faults (and grievous faults they were), we may justly call *the great architect of the temple of knowledge*, concluded rightly, that the Mythology of the *Greeks*, which their oldest writers do not pretend to have invented, was no more than a *light air, which had passed from a more ancient people into the flutes of the Grecians*, and which they modulated into such descants as best suited their fancies and the state of their new settlements; but we must ever attend to the distinction between *evidence* and *conjecture*; and I am not yet fully satisfied with many parts of Mr. WILFORD's Essay, which are founded on so uncertain a basis as *conjectural* etymology; though I readily admit, that his etymologies are always ingenious, often plausible, and may hereafter, perhaps, be confirmed by historical proof. Let me conclude these remarks with applying to him the words of the memorable writer, whom I have just named, and with expressing an opinion, in which I have no doubt of your concurrence, "That with persevering industry, and with scrupulous attention to genealogies, monuments, inscriptions, names and titles, derivations of words, traditions and archives, fragments of history, and scattered passages from rare books on very different subjects, he has preserved a venerable *tablet from the shipwreck of time*; a work, operose and painful to the author, but extremely delightful to his readers, and highly deserving their grateful acknowledgements."

A DESCRIPTION OF THE PLANT BUTEA.

BY DR. ROXBURGH.

I. **T**HE *Maduga* of the *Gentoos*, and *Plaso* of the *Hortus Malabaricus* *, is a middle sized, or rather a large tree, not very common on the lowlands of this coast, but much more so up among the mountains: it casts its leaves during the cold season: they come out again with the flowers about the months of *March* and *April*; and the seed is ripe in *June* or *July*.

TRUNK irregular, generally a little crooked, covered with ash-coloured, spongy, thick, slightly scabrous bark, the middle strata of which contain a red juice hereafter to be mentioned.

BRANCHES very irregularly bent in various directions; young shoots downy.

LEAVES alternate, spreading, threed, from eight to sixteen inches long. Leaflets emarginated, or rounded at the apex, leathery, above shining and pretty smooth, below slightly hoary, entire: the pair are obliquely oval from four to seven inches long, and from three to four and a half broad, the exterior one inverse-hearted, or, in other words, transversely oval, and considerably larger than the lateral.

Common Petiole round when young, downy, the length of the leaflets.

Stipules of the Petiole small, recurved, downy.

—— of the Leaflets awled.

RACEME terminal, axillary, and form tuberosities over the naked woody branchlets standing in every direction, rigid, covered with a soft greenish purple down.

FLOWERS *Papilionaceous*, pendulous, pedicelled, fascicled, large, their ground of a beautiful deep red, shaded with orange and silver-coloured down, which gives them a most elegant appearance.

PEDICLES round, about an inch long, articulated near the apex, and covered with the same greenish velvet-like down.

BRACTS, one below the insertion of each pedicle, lanced, falling, two similar but smaller, pressing on the Calyx, falling also.

CALYX: *Perianth* bellied, leathery, two-lipped, *upper* lip large, scarce emarginated;

* The *Butea Frondosa* of Koenig.

under three-toothed, covered with the same dark green down that the raceme and pedicles are covered with, withering.

COROL :

Banner reflected, egged, pointed, very little longer than the wings.

Wings ascending, lanced, the length of the keel.

Keel below two-parted, ascending, large, mooned, the length of the wings and banner.

STAMENS: filaments one and nine, ascending in a regular semicircle, about as long as the corol.

Anthers equal, linear, erect.

PISTIL: *Germ* short, thick, pedicelled, lanced, downy.

Style ascending, a little larger than the filaments.

Stigma small, glandulous.

PERICARP, *legume* pedicelled, large, pendulous, all but the apex where the seed is lodged, leafy, downy, about six inches long by two broad, never opening of itself.

SEED one, lodged at the point of the legume, oval, much compressed, smooth, brown, from an inch and a quarter to an inch and a half long, and about one broad.

From natural fissures, and wounds made in the bark of this tree during the hot season, there issues a most beautiful red juice, which soon hardens into a ruby-coloured brittle astringent gum: but it soon loses its beautiful colour, if exposed to the air. To preserve the colour, it must be gathered as soon as it becomes hard, and kept closely corked up in a bottle.

This gum, held in a flame of a candle, swells and burns away slowly, without smell or the least flame, into a coal, and then into fine light white ashes. Held in the mouth it soon dissolves; it tastes strongly, but simply, astringent; heat does not soften it, but rather renders it more brittle; pure water dissolves it perfectly: the solution is of a deep red colour; it is in a great measure soluble in spirits; but this solution is paler, and a little turbid; the watery solution also becomes turbid when spirit is added, and the spirituous more clear by the addition of water; diluted vitriolic acid renders both solutions turbid: mild caustic vegetable alkali changes the colour of the watery solution to a clear deep fiery red *: the spirituous it also

* With an alkalized decoction of this gum, I tried to dye cotton cloth prepared with alum, with fugar of lead, and with a solution of tin in *aqua regia*; but the reds produced thereby were bad. that where alum was employed was the best.

deepens,

deepens, but in a less degree: *Sal Martis* changes the watery solution into a good durable ink.

These are, I think, proofs that a very small proportion of resin is present in this substance: in this it differs essentially from the gum resin called *Kino*, or *Gummi rubrum astringens*, which the *Edinburgh* college has taken into their *Materia Medica* (I have used the recent gum in making my experiments, which may make some difference); but as this can be most perfectly dissolved in watery menstrua, it may prove of use where a spirituous solution of the former (being the most complete) cannot be so properly administered, consequently it may prove a valuable acquisition also.

Infusions of the flowers, either fresh or dried, dyed cotton cloth, previously impregnated with a solution of alum, or alum and tartar, of a most beautiful bright yellow, which was more or less deep according to the strength of the infusion: a little alkali added to the infusion, changes it to a deep reddish orange; it then dyed unprepared cotton cloth of the same colour, which the least acid changes to a yellow or lemon: these beautiful colours I have not been able to render perfectly permanent.

Amongst numberless experiments, I expressed a quantity of the juice of the fresh flowers, which was diluted with alum water, and rendered perfectly clear by depuration: it was then evaporated by the heat of the sun, into a soft extract; this proves a brighter water-colour than any gamboge I have met with. It is one year since I first used it, and it remains bright.

Infusions of the dried flowers yielded me an extract very little, if any thing, inferior to this last mentioned; they yield also a very fine durable yellow lake, and all these in a very large proportion.

The *Lac* insects are frequently found on the small branches and the petioles of the leaves of this tree. Whether the natural juices of its bark contribute to improve the colour of their red colouring matter, I cannot say: it would require a set of experiments accurately made on specimens of lac gathered from the various trees it is found on, at the same time and as nearly as possible from the same place, to determine this point.

I do not find that the natives make any use of the gum or flowers, although they promise to be valuable: the former as a medicine, and the latter as a pigment and dying drug.

II. *Butea Superba* *, *Tiga Maduga* of the *Gentoos*, is a very large twining shrub, a native of the mountains. Flowering time, the beginning of the hot season.

ROOT spindle-form, very large.

STEM twining, as thick as, or thicker than, a man's leg, woody, very long, running over large trees. Bark, ash-coloured, pretty smooth.

BRANCHES like the stem, but small, and with a smoother bark.

LEAVES alternate, threed, remote, very large.

LEAFLETS downy, in other respects as in *Butea Frondosa*, but greatly larger: the exterior one is generally about twenty inches long, and broad in proportion, the lateral somewhat less.

RACEMES as in the former, but much larger.

FLOWERS also the same, only much larger, and more numerous.

CALYX divided as the other, but the divisions longer and much more pointed.

COROL the same.

LEGUMES and Seed as in the former, but rather larger.

When this species is in full flower, I do not think the vegetable world offers a more gaudy show: the flowers are incomparably beautiful, very large, and very numerous; the colours are so exceedingly vivid, that my best painter has not been able, with his utmost skill, to come any thing like near their brightness.

From fissures, &c. in the bark, the same sort of ruby-coloured astringent gum exudes: the flowers also yield the same beautiful yellow dye and pigment.

Dr. ROXBURGH's Description of the *Nerium Tinctorium* would have been subjoined; but the publication of it is delayed, until the Society have been favoured with the result of his farther experiments.

ON THE MANUFACTURE OF INDIGO AT AMBORE.

By Lieutenant Colonel CLAUDE MARTIN.

I PRESENT the society with a short description of the process observed in the culture and manufacture of Indigo, in this part of *India*. The *Ambore* district is comprised within a range of surrounding hills of a moderate height: the river *Pallar*, declining from its apparent southerly direction, enters this district about three miles

* So named by Dr. ROXBURGH.

from the eastward, washes the *Ambore Pettab*, a small neat village, distant three miles to the southward of the fort of that name, situated in a beautiful valley; the skirts of the hills covered with the Palmeira and Date trees, from the produce of which a considerable quantity of coarse sugar is made; this tract is fertilized by numerous rills of water conducted from the river along the margin of the heights and throughout the intermediate extent: this element being conveyed in these artificial canals (three feet deep) affording a pure and crystal current of excellent water for the supply of the Rice-fields, Tobacco, Mango, and Cocoonut plantations; the highest situated lands affording Indigo, apparently without any artificial watering, and attaining maturity at this season, notwithstanding the intenseness of the heat, the thermometer under cover of a tent rising to 100, and out of it to 120; the plant affording even in the driest spots good foliage, although more luxuriant in moister situations. I am just returned from examining the manufacture of this article. First, the plant is boiled in earthen pots of about eighteen inches diameter, disposed on the ground in excavated ranges, from twenty to thirty feet long, and one broad, according to the number used. When the boiling process has extracted all the colouring matter ascertainable by the colour exhibited, the extract is immediately poured into an adjoining small jar fixed in the ground for its reception, and is thence laded in small pots into larger jars disposed on adjoining higher ground, being first filtered through a cloth; the jar, when three-fourths full, is agitated with a split bamboo extended into a circle, of a diameter from thirteen to twenty inches, the hoop twisted with a sort of coarse straw, with which the manufacturer proceeds to beat or agitate the extract, until a granulation of the fecula takes place, the operation continuing nearly for the space of three-fourths of an hour; a precipitant composed of red earth and water, in the quantity of four quart bottles, is poured into the jar, which after mixture is allowed to stand the whole night, and in the morning the superincumbent fluid is drawn off through three or four apertures practised in the side of the jar in a vertical direction, the lowest reaching to within five inches of the bottom, sufficient to retain the fecula, which is carried to the houses and dried in bags.

This is the whole of the process recurred to in this part, which, I think, if adopted in *Bengal*, might in no small degree supersede the necessity of raising great and expensive buildings, in a word, save the expenditure of so much money in dead stock, before they can make any Indigo in the *European* method, to which I have to add, that Indigo thus obtained possesses a very fine quality.

As I think these observations may be useful to the manufacturers in *Bengal*, I should wish to see them printed in the *Transactions* of the *Asiatick Society*.

Ambore, 2d April, 1791.

EXTRACT OF A TREATISE ON THE MANUFACTURE OF INDIGO.

BY MR. DE COSSIGNY.

“THIS experiment (the *Indian* process infallibly shows, that *Indigo* may be produced by different methods, and how much it is to be regretted that the *European* artists should remain constantly wedded to their *method* or *routine*, without having yet made the necessary inquiries towards attaining perfection. Many travellers on the coast of *Coromandel* have been struck with the apparent simplicity of the means used by the *Indians* in preparing Indigo, from having seen their artists employed in the open air, with only earthen jars, and from not having duly examined and weighed the extent of the detail of their process, apprehend that it is effected by easier means than with the large vats of masonry, and the machinery employed by *Europeans*; but they have been greatly mistaken, the whole appearing a delusive conclusion, from the following observation, viz. that one man can, in the *European* method of manufacture, bring to issue one vat containing fifty bundles of plant, which, according to their nature and quality, may afford from ten to thirty pounds of Indigo; whereas, by the *Indian* process, one employed during the same time would probably only produce one pound of Indigo; the *European* method is therefore the most simple, as well as every art where machinery is used instead of manual labour.”

NOTE.

EXPERIENCE alone must decide between the opposite opinions of Colonel MARTIN and M. DE COSSIGNY.

DISCOURSE THE NINTH, ON THE ORIGIN AND FAMILIES OF NATIONS.—See the *Works of Sir William Jones*, Vol. I. p. 129.

ASIATICK RESEARCHES:
OR,
TRANSACTIONS
OF THE
SOCIETY INSTITUTED IN ·BENGAL,
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HISTORY AND ANTIQUITIES, THE ARTS, SCIENCES, AND LITERATURE,
OF
A S I A.

VOLUME THE FOURTH.

THE TENTH ANNIVERSARY DISCOURSE.—*See the Works of Sir Williams Jones, Vol. I. p. 143.*

ON THREE NATURAL PRODUCTIONS OF SUMATRA.

By JOHN MACDONALD, *Esq.*

ON THE CAMPHOR OF SUMATRA.

IN answer to some questions put to me by the President of the *Asiatick Society* respecting camphor-oil, I have the pleasure of giving the solution contained in the following short account:—Camphor-oil, one of the essential oils, is actually camphor, before the operations of nature on it have reduced it to the concrete form in which it is found in the tree. When Mr. MARSDEN composed his justly-admired history of *Sumatra*, the prevalent opinion on this subject was, that the oil and the concreted camphor were never found in the same tree. I have the authority of a gentleman, Lieutenant LEWIS, well informed on this subject, from a residence of many years in the country producing the camphor, to differ from that generally accurate author, by saying, that he has seen a tree three quarters of a mile from the sea; near *Tappanooly*, from which three *catties* (above three pounds) of camphor, and at the same time, near two gallons of oil had been procured. If a tree be old, and yield oil plentifully, the natives esteem these two circumstances sure indications of its containing a considerable quantity of camphor. Mr. MACQUER, in his chemical dictionary, has remarked, that the nitrous acid dissolves camphor without commotion, that the solution is clear and limpid, and that it is called camphor-oil. This affords a proof that the formed camphor is produced from the oil by a natural operation of composition, the decomposition by means of the above solvent reducing the substance to its primary state, previous to concretion. The *Achinese* are reckoned the best judges of camphor; and the oil they collect undergoes a process by distillation, leaving a residuum of inferior camphor. Trees of a certain age only yield camphor.

camphor. It would seem that a certain time is requisite for maturing the oil to that state, when its contained camphor becomes fit for being concreted by the heat of the sun acting on the tree and soil. The camphor-tree is one of the *Enneandria Monogynia* of LINNÆUS, and differs in a small variation in the form of the leaf from the *Arbor Camphorifera Japonica*, *foliis laurinis fructu parvo, calyce brevissimo*. The tree very much resembles the Bay in leaves. The trunk is thick; the bark of a brownish appearance; and the ramification strong, close, and extended. It is fond of a rich red loam, tending to a blackish clay, mixed with a crumbling stone of the colour of marl. It grows principally on the N.W. side of *Sumatra*, from the line 3° N. nearly. The wood is useful for domestic purposes, being soft and easily worked. It is by many imagined, that camphor is produced by a chemical process. This is a mistaken idea, farther than regards the inferior kind arising from the distillation of the oil. I shall give a brief account of the mode of obtaining and preparing it, as practised by the natives of *Sumatra*, from the time of the establishment of the *English* on the island. The *Sumatrans*, previous to their setting out in quest of camphor, assemble on the confines of the country they intend exploring, and discharge a variety of religious duties and ceremonies, calculated, in their opinion, to promote the future success of their undertaking. They enter the woods, and, from experience, soon distinguish such trees as contain camphor. They pierce them; and if they yield oil plentifully, it is presumed they contain concreted camphor, which is found in small whitish flakes, situated perpendicularly, in irregular veins, in and near the centres of the trees. The tree is cut down, divided into junks, and carefully divested of its camphor. When the oil has been drawn off from young trees, the camphor, which they afterwards afford, is of a less valuable nature, and is termed *belly* or *foot* camphor, in proportion to the degree of affinity it bears to *head*, or the best sort. When brought for sale, it is repeatedly soaked and washed in soapy water, to separate from it all heterogeneous and sandy particles that may have adhered to it. When clean, it will sink in water, and be of a white, glossy, smooth appearance, tending to transparency. After it has been washed, it is passed through three sieves of differing textures, so as to be divided into *head*, *belly*, and *foot* camphor: certain proportions of each compose the chests made up for the *China* market, where they are sold for 350 l. sterling, nearly. The *capoor** (a word of *Arabick* origin) *matee*, or dead camphor, is carefully separated from the three divisions, by

* *Câfir* in *Arabick*, and *Carp'ra* in *Sanscrit*.

an acuteness of distinction, acquired by the eye and hand from habit and attention, and, being mixed with the imperfect kind mentioned above, is pounded in a mortar and distributed among proportional quantities of foot camphor. This *capoor-matee* is sometimes procured by boiling down the thickest part of the oil, or by taking the sediment of the best oil, after it has settled at least twenty-four hours. Camphor-oil is found to be a sovereign remedy for strains, bruises, and other external pains, from its penetrating quality in entering the pores, and gently agitating the affected parts, so as to quicken the stagnated circulation. The internal, anodyne and diaphoretic, and the external, antispasmodic and sedative, virtues of camphor are well known. The oil is found to possess these in a certain degree, and to be useful in removing the painful spasms of the nerves and tendons, by dissipating the surrounding acrid humours. When the oil is used, it must be formed into a liniment, as it would alone occasion pain from its strength. The oil applied to sores on horses has been found very beneficial. In this case it ought to be mixed with the juice of the tobacco. *Sumatra* affords annually from fifteen to twenty *peculs* (of $133\frac{1}{3}$ pounds each), of camphor, and more oil than there is at present a demand for. The *Chinese* purchase it; and it is not clearly ascertained whether they use it all in *China*, or make a factitious species of it, by admixture of *Japanese* camphor, for the *Europe* market: the latter is generally supposed. It is highly probable, that the price of camphor will, in process of time, rise to an enormous degree, as one tree in three hundred is not found to contain camphor, and, when found, is immediately cut down; in consequence of which, the plant must soon become scarce, and the produce proportionably dear. It is to be hoped that the oil will, in this event, be found by the faculty to possess all the useful qualities of this valuable medicine. I have the satisfaction of accompanying this paper with a specimen, though a small one, of the camphor-wood, with a small quantity of the substance in it, the rest having evaporated from length of time. If this account should afford any information to the President and Members of the *Asiatick* Society, my intention will be fully answered.

ON THE CORAL OF SUMATRA.

If this paper should be deemed worthy of a place in the *Transactions* of the *Asiatick* Society, the insertion I must still consider as an indulgence, and my attempt, a proof that I am more anxious than able, to increase the general stock of *Eastern* natural

natural knowledge, recorded in the useful annals of the Society. Specimens of coral, for your acceptance, and for the illustration of this subject, are now forwarded.

The appearance of *Sumatran* coral does not altogether correspond with the descriptions of the plant hitherto given *. This induces me to describe such parts as are imperfectly represented. The plant, to which the various species of coral belong, is one of the *Cryptogamice* of LINNÆUS, and may be reckoned one of the *Herbæ Marinæ* of Tournefort; of the *Herbæ imperfectæ* of Mr. RAY. It may be reduced to three colours, red, black, and whitish-yellow: the last is the most common in the *Eastern* seas. It is of a fungous texture, equally hard out of and in its natural element: and its pores are charged with a juice of a milky appearance, in some degree acrid. The bark covers every part of the tree, and contains a number of perforated *papillæ* terminating in tubes, having two or more holes in each, intended, I imagine, for the admission of the matter affording nutriment to the plant. The internal projections of the *papillæ* adhere to the particles of sand and stone on which the coral grows, and are the only appearance of roots it exhibits. On examining the internal extremities of these *papillæ* by means of glasses, some very small ramifications are discovered. These are very easily observed in the *papillæ*, which are attached to the bark of the root. The tree is said to grow to the height of two feet: I have seen some as high as ten feet. From these and other differences in appearance, I am apt to think that some *European* and *Indian* corals are not the same, but species of the same genus. From the very rapid growth of coral on the west coast of *Sumatra*, and in the *Eastern* seas in general, as will be shown in this paper, there can subsist but little doubt that it is a vegetable substance; though there have not been wanting some, who have supposed it a fossil formed like crystals and spars; and others, eminent naturalists, who have ranked it among the animal tribes. BOCCONE discovered that this plant encloses a nutritious juice under its bark: and Count MARSIGLI remarked and observed its flowers and seeds. I shall here insert MARSIGLI's accurate experiment, which affords the decision of almost absolute demonstration in favour of coral being a vegetating plant. "Having steeped some coral, fresh-gathered, in sea-water, he perceived, in a short time, that the little ruddy tubercles which appeared on the surface of the bark began gradually to unfold, and at length opened into white flowers in the form of stars, with eight points, which were sustained by a little calyx, divided, in like manner, into eight parts. Upon

* See the remark at the end of this paper.

taking the coral out of the water, the flowers immediately closed, and returned into red tubercles as before; which tubercles, being closely squeezed, yielded a sort of milky juice: and upon returning the coral into the water as before, the tubercles, in an hour's time, opened, or flowered afresh; and this was continued for six or eight days, when the buds, or tubercles, ceased to blow any more. In ten or twelve days they became detached from the coral, and sunk to the bottom, in form of little yellow balls. These tubercles then, according to the analogy of plants, should be the flowers of coral; and the milky viscid juice contained therein, the pollen. Accordingly it is held, that when this juice falls on a properly-disposed body or nidus, a new coral arises therefrom; and the analysis of coral answers precisely to that of other sea-plants, all of them affording a volatile urinous salt, and a thick blackish fetid oil."—*Elementa Chimiæ* of BOERHAAVE, page 135, Note, vol. 1. & Mem. de l'Acad. An 1708.

Whether, after all, the striated *papillæ*, which are of a stellar figure, and the two or more apertures of which are divided, generally, into twelve parts, contain an animal whose labour produces the growth of the coral, or who inhabits the coral for its own immediate satisfaction, is a question that has been much agitated, without affording any certain conclusions. Monsieur DE PEYSSONNEL, after having inquired into and discussed the various arguments for and against coral's being a petrification or a congelation, concludes that it is the work of an insect, which he denominates an *Urtica*, *Purpura*, or *Polype*, that contracts in air, expands in water, and is sensible to the touch, or the action of an acid. From MARSIGLI's experiment, as recited above, I think we may safely conclude, that PEYSSONNEL mistook the matter, and supposed a flower an insect; for it is well known that many flowers, on being plunged into an acid, will exhibit signs of contraction and movement. We observe many growing substances which are inhabited by animals, or insects, merely for their convenience, and not to promote the growth of such substances, which they very frequently, on the contrary, retard. If an animal can be supposed to produce such immense bodies of this substance, as I shall have occasion to mention, whence does it derive the prodigious degree of nutriment requisite for the purpose, as it is not found that it quits the centre of its striated habitation? why do not these *vermiculi marini* leave cells behind them, as they advance the growth of the coral? We find none, but, on the contrary, the surface uniformly smooth and even. As for the external cells, they are the channels that convey nourishment, and correspond to the fibres of plants. It must remain, however, in some degree, a doubt, whether

whether these marine productions are zoophytes, produced by the labour of animals, or whether they are produced on a vegetating principle. It will be difficult to bring this matter to the test of modern natural philosophy, *viz.* experiment: but till such can be made, opinions must be various, though the majority, and apparently (from MARSIGLI's experiment) the best founded, incline to the belief of corals being produced by vegetation. Having slightly reviewed both sides of this curious question, and having hazarded my own opinion, which can be of little weight, I come now to the intention of troubling the *Asiatick Society* with these remarks, imperfect as they must appear.

The production of islands, on the west coast of *Sumatra*, by the very rapid increase of this wonderful plant, is a remarkable effect of the operations of nature, hitherto unrecorded in the annals of natural philosophy. Mr. DALRYMPLE alone has alleged a fact, to which this account will add the weight of convincing testimony. In the year 1784, I was directed to survey the coast of the Dutch districts on the west side of the island of *Sumatra*. During the course of this survey, I had occasion to lay down on my charts several shoals, consisting of branched coral, sand, and such heterogeneous matter as they will resist and incorporate with themselves, when impelled against them by the action of the seas, winds, tide, or currents. The surfaces of these shoals were at various depths, from one foot to three or more fathoms. They are of a conical form, the base, in proportion to the axis, being small. The shape gives them, in general, the appearance of trees of that figure, such as the poplar, &c. One of the shoals I visited, to the south-west of *Pooloo Pinang*, near *Padang*, was at that time covered by two feet and an half of water, and could not be distinguished by vessels passing at some distance, but at such times as the winds produced a swell or agitation on it. I passed along this part of the coast in *February*, 1789, very close to the shoal, just four years and seven months after the period at which the survey had been taken; and was not a little astonished to observe a small sandy island, about ten yards in diameter, having a few bushes growing on it, formed on the top of the shoal, which lies nearly in thirty-seven fathoms of water. I could not mistake this shoal, as there was no other contiguous to it, and as my chart, by which I suggested the safest course to run in, then lay before me. In *May* and *September*, 1789, I had an opportunity, in going to and returning from *Tappanooly*-harbour (which I had been directed to survey), to be again on several of the shoals included in my chart of the coasts of the *Dutch*-districts, and, according to my expectations, found the depth of the water on them considerably diminished

diminished since the survey had been taken. In March, 1799, I was sent for by a gentlemen at *Fort Marlborough*, whose house commanded a view of the sea, to observe the water breaking on two shoals in the roads. This gentleman had resided on the coast near fifteen years, and frequently in this house, without having observed these shoals, which, had they appeared at any former period, must have been remarked, their situation being clearly and distinctly exposed to the daily and immediate observation of the settlement. At the distance of seven miles from *Fort Marlborough*, nearly in a south-west direction, there is a small island, having a few coconut trees in it. Thirty miles (or it may be twenty-five) distant from this island, one of the northern pepper settlements is situated on a rising ground. The gentleman residing there has informed me, that he has always been able to distinguish the masts of vessels lying at anchor near this island, and that he lately twice distinctly, in the proper bearing, observed the trees of the island: but that, afterwards, from hazy weather, or some other affection of the atmosphere, he could not perceive the island, or rather the trees on it. Former residents of *Laye*, the place of observation, have, in vain, when using the best glasses, looked for this island, invisible till lately. Such are the stubborn facts which may be adduced in proof, not only of the very rapid growth of coral, but also of the formation of islands from it, as a necessary, and observed, consequence. The growth of coral alone may not produce this effect: other aiding circumstances may intervene. BOCCONE and MARSIGLI have remarked, that, when coral meets with stones, coarse sand, or any other substances, it seizes them firmly, and speedily includes them within a strong extension of its close ramifications. These collections in seas, subject to frequent storms and agitations, must be considerable, and promote, in no small degree, the elevation of islands. Earthquakes are very frequently felt on this island, and on the contiguous ones. Several shocks are sometimes experienced during the course of a month. It is observable that this tremendous phenomenon, in its progress, undulates the space it moves, or travels, under; and that the concave parts of these undulations open into fissures when the motion is violent. It is not improbable but that such openings take place under shoals, or immediately contiguous to them. In this case, to preserve the equilibrium, it seems reasonable to suppose that the surrounding sand and substances will rush in, hurried along by the general movement, in a greater quantity, from the degree of momentum impelling them, than what occupied the space of the fissure when at rest. These hiatus take place only on the side of the undu-

lation

lation from which the earthquake proceeds; and the sand on that side, now inclining to rest, after having experienced the shock, but still possessing a tendency to move in the direction of the earthquake, will naturally fall into the hiatus opened for its reception, before the undulation can reverberate into its original position. Hence the shoal, or island, will be in some degree raised, by an effect similar to that of a lever, though by different means. These islands and shoals, being further removed than other parts exposed to the shock, from the subterraneous or submarine crannies or channels in which the earthquake acts, will, of course, resist its action more than parts possessing less incumbent weight. The undulations will, therefore, meet with more resistance, and deposit a greater quantity of sand than in situations resisting less. In the formation of islands, from coral and sand, as soon as the sand appears above the surface of the water, birds carry roots and various seeds attached to them, for the construction of nests: hence the speedy appearance of bushes and trees. Instead of supposing with some, that the numerous islands on this coast have been formed by the violent commotions of nature, occasioned by earthquakes, which separated them from the continent, it is more reasonable to suppose their formation on the above principles, and chiefly by coral: more especially, when we consider that the depth of water between many of these islands and *Sumatra* is unfathomable. The numerous clusters of islands in the eastern seas, from 36 to 16 degrees of east longitude, are all supported by bases of coral, and surrounded by shoals emerging from the surface, or pushing their conical frustra into a new element. Experience has ascertained the formation of islands from coral: it is not altogether conjecture to suppose that various groups of islands, in the great eastern Archipelago, will, in process of time, become continents, or insular tracks or spaces of land. On the coast of *Coromandel*, in the immediate front of *Madras*, exposed anchorage has produced, and produces annually, lamentable accidents, attended with much public detriment. The position of a sheltering island in that situation would be an object of national benefit, and private safety and advantage. To attempt to effect this, a considerable quantity of coral might be transported from this coast, at no great expence, and sunk, with stones and other substances, in seven, eight, or eleven fathoms of water. In the course, probably, of forty or fifty years, an island might be formed by the growth of this substance. This is a long period to look forward to for the benefit of futurity; but from what I have, from my own observation, inserted in this paper, I am convinced of the practicability and success of a
scheme,

ſcheme, which many will treat as chimerical and viſionary, while others, more thinking, will ſee the utility of the deſign and probability of ſucceſs; but will be deterred by the difficulty and tediousneſs which would attend the execution.

REMARK BY THE PRESIDENT.

It ſeems at length to be ſettled among naturaliſts, that corals and corallines are the cretaceous habitations of animals, and one of the links in the great chain of nature. The idea of making iſlands for the protection of ſhips at anchor, is very ſublime; but it might be feared, that very dangerous reefs of coral would be formed, before an iſle could appear above the water: an artificial embankment of coral might, perhaps, on ſome coaſts, be a powerful barrier againſt an encroachment of the ſea.

ON THE COPPER OF SUMATRA.

I HAVE the ſatisfaction of laying before the *Aſiatick* Society a ſpecimen of copper-ore, the production of the iſland of *Sumatra*. It is found on and in the hills of *Mucchy*, near the ſea, between *Annalaboo* and *Sooſſoo*, to the north of our extreme *Engliſh* ſettlement of *Tappanooly*. The ſoil, which generates the ore, is a mixed loam, conſiſting of clay, ſmall ſtones, and red ſand, founded on an underſoil of ſoft rock, interſected with veins of this uſeful ſubſtance. The ſpace affording the ore is conſiderable; extending above a degree in length, and further eaſt, or into the country, than has yet been aſcertained. A conſiderable quantity of ore is annually collected on the ſurface of the hills, to which the indolence or ignorance of the inhabitants, at preſent, confines their ſearch. Its being found on the ſurface, may probably be aſcribed to the efforts of earthquakes, which are very prevalent on this coaſt, and over the iſland in general. The natives, from inexperience, are incapable of conducting a mine, and purſuing a metallic vein. They are content with excavating the ore, till their labour is interrupted by the flowing of the water, which ſoon takes place in a country ſubject to heavy rains throughout the year. As many of theſe veins widen as far as they have yet been traced, it is more than probable, that theſe hills contain inexhaustible mines of this metal. The ore, by repeated ſmeltings, and other operations to free it from its fulphur, has been reduced to a metal, and then found to include a conſiderable proportion of gold. As no part of
the

the world contains a greater quantity of this latter metal than *Sumatra*, in proportion to the area it occupies on the globe, it is probable that the discovery of gold mines would attend the establishment of copper ones in the hills of *Annalaboo*. This is so much the more probable, as metalline stones of various kinds, and which the *Malays* regard as sure indications of a soil affording gold, are found on these hills; independently of the consideration, that gold-dust is collected in the immediate neighbourhood, and in the interior country, contiguous to the hills yielding the copper-ore. It is singular, that the same method of rough smelting, which is practised at *Goslaw* in *Germany*, should be in use among the uncivilized inhabitants of *Sumatra*. The *Sumatran* method possesses more ingenuity, and is, at the same time, more simple. An undemonstrated knowledge of the plainest and most obvious principles of science is congenial to the most rude as well as to the most civilized conceptions, and the advantages, which the talents of *born genius* have conferred on *Europe*, are, by no means, a conclusive proof of the inferiority of intellect, which the fortunate inhabitants of *Europe* liberally bestow on their less enlightened brethren of the *East* and *West*. That "time and chance happen unto all things under the sun," is a truth that amounts to a voluminous disquisition on this subject. But to return: The ore-gatherers chuse a level spot of hard clay, which they divide into equidistant points, by lines intersecting each other, and laid off equally on two sides of a square. These points, included in the square space, they surround with circles, of which the points are the centres. The circles are inverted bases of cones, excavated to receive the fused metal. The smelting space is now covered with wood, charcoal, and other combustible matters, and the ore is distributed among these admixtures. The melted ore is received into the formed holes, leaving the scoriæ or recrement above. The metal, still requiring many smeltings to render it fit for use, or perfectly malleable and ductile, is taken out in the form of pointed cakes, and sold for twenty *Spanish* dollars per *pecul*, or five pounds sterling for 133½ pounds avoirdupois weight. The natives are particularly careful in preventing accidents; for, previously to fusing the ore, they heat the ground to a great degree, in order that all the water near the surface may be absorbed, or made to exhale, having experienced, I imagine, that copper, when in a state of fusion, meeting the smallest quantity of water, will fly in all directions with a force destructive of every vulnerable substance within the sphere of its action. I have been informed, that the metal has been eliquated at *Madras* lately, and found to contain very little appearance of any other but of gold. The usual solvents, aqua fortis, aqua regia, and spirit of salts,

salts, readily dissolve the *Sumatran* copper. A deep green solution is produced, in a very short time, by the action of the weaker acids on the rough ore. The above method of smelting will separate all coarse, mineral, and heterogeneous substances from the metal, but will still leave it strongly impregnated with its peculiar mineral earth. The detaching of this mineral earth is the most difficult and expensive operation attending the refinement and purification of copper; it being frequently necessary to add a proportion of another metal to effect it. This consideration will, probably, prevent a private company from applying for public permission to work these mines; and, therefore, they must remain in their present state, unless the East-India Company will order the experiment to be made, from the reports and opinions of such as may be qualified to give them on so interesting a subject. By submitting this short account to the gentlemen of our Society, whose useful researches will, I hope, produce permanent national benefit, by advancing the knowledge of nature, of science, and of literature, opinions properly weighed, will be diffused among the publick, of the advantages that may result from an establishment for working copper-mines on the west coast of *Sumatra*.

ON THE PLANT MORINDA, AND ITS USES.

By WILLIAM HUNTER, Esq.

ALTHOUGH the plant, which is the subject of this essay, be not a new species, yet, as it is cultivated to a great extent in *Málava*, and forms an important branch of the commerce of that province, I hope a particular description of it, with some account of its culture and use, will not be unacceptable to the *Asiatick* Society.

It is the *Morinda* of LINNÆUS: It belongs to the order *Pentandria Monogynia* in his system, and is referred by him to the natural order of *Aggregatæ*. Here (though it may seem a digression from the subject) I cannot help observing, that LINNÆUS is not altogether consistent in the distinction, which he endeavours to establish, between the *aggregatæ* (properly so called) and the *compound* flowers. In his *Philosophia Botanica*, § 116, he defines a *compound* flower to be “that which has a broad entire receptacle, and sessile florets;” and an *aggregatæ* flower, “that which has a broad receptacle, and florets supported on peduncles.” According to these definitions,

definitions, the *Morinda* ought to be placed among the *compound* flowers; but in the following section, LINNÆUS makes the essential character of the *compound* flowers to consist in having all the anthers united: thus restricting it to his class of *Syngedesia*. This not only excludes the *Morinda*, but ought perhaps to have, strictly speaking, excluded the *Kubnia*, *Iva*, and *Ambrosia*: and even, allowing the approximated anthers in these genera to come within the meaning of the definition, it seems unaccountable that the *Nauclea* *, which appears so well entitled to a place in one of these orders, should be excluded from both.

The *Aal* is a tree of a middling size; the *root* branchy; the *trunk* columnar, erect, covered with a scabrous bark.

Branches from the upper part of the trunk, scattered; of the structure of the trunk.

Leaves (feminal) oval, obtuse, entire.

(mature) opposite, decussated, ovate, pointed at both ends, smooth, with very short petioles.

Stipules lanced very small, withering.

Peduncles, from the axils of the leaves, solitary, bearing an 'aggregate flower. *Calyx*: common receptacle roundish, collecting the sessile flowers into an irregular head.

Perianth most entire, scarce observable above.

Corol, one-petaled, funnel-form; *Tube* cylindrick; *Border* five-cleft; the *divisions* lanced.

Stamen: *Filaments* five, thread-form, arising from the tube, and adhering to it through two thirds of their length, a little shorter than the tube.

Anthers linear, erect.

Pistil: Germ beneath †. *Style* thread-form, longer than the stamens. *Stigma* two-cleft, thickish.

Pericarp: common, irregular, divided on the surface into irregular angular spaces; composed of berries pyramidal, compressed on all sides by the adjacent ones, and concreted with them, lopped, containing, towards the base, a fleshy pulp.

Seeds in each berry four, towards the point oblong, externally convex, internally angular.

The species here described is called by LINNÆUS *Morinda arborea pedunculis solitariis*: and he gives it the trivial name of *citirfolia*; but the form of the leaves,

* The *Cadam* of the Hindus.

† The Germ is four-celled, and contains the rudiments of four seeds.

in all the specimens I have seen, does not exhibit this similitude, as will appear by the inspection of the accompanying figure, which was drawn from nature. There are figures of it given by RUMPHIUS (Herb. Amboin. vol. 3. tab. 99.) who calls it *Bancudus latifolia*, and by RHEEDE (Hort. Malab. vol. i. tab. 52.) who calls it *Cáda-pilarva*. In *Málava* it is called *Aal*, and in *Oude* it has the name of *Atchy*.

The plant grows best in a black rich soil, free from stones, in situations moderately moist, not too high, yet sufficiently elevated to prevent the water of the rains from stagnating; and where there is near at hand a supply of water for the dry months. It is sown about the middle or end of *June*, after the rain has begun to fall. The ground requires no manure, it is ploughed twice, or, if tough and hard, three times. The seed is sown, either broad-cast, or in drills, according to the fancy of the cultivator. The ground is then ploughed over again, and harrowed. In one *beegab** of ground are sown, from $1\frac{1}{2}$ to $2\frac{1}{2}$ *muns* † of seed. In fifteen or twenty days the young plants spring up. The field is then carefully weeded, and the ground stirred with an iron instrument. This operation is repeated, at proper intervals, during the first year; and in the dry months of that year (that is, from *January* till *June*) the ground is three or four times laid under water. After the first year, it requires no farther care. In a year the plant grows to the height of one or two feet, according to the quality of the soil. In the third year, sometimes in the second, it bears flowers and fruit. The flowers appear in *June*, and the fruit ripens in *September* or *October*: but the fruit of those young trees is not used for seed, as it is said not to produce vigorous plants. In the months of *February* and *March* following the third year, the plants are dug up. They dig to the depth of three or four feet; the root, which is the only valuable part, extending so far into the ground. The wood of the plant is only used for fuel. Sometimes the necessities of the husbandman oblige him to dig the crop in the second, or even at the end of the first year; but the root is obtained in much smaller quantity, and less rich in colouring matter than if it had remained the regular time. The crop is not much affected by the excess or defect of the periodical rains. When it is dug at the end of the third year, one *beegab* yields from four to six *maunies* ‡ of the root in a wet state. These are spread on cloths, and dried in the sun, for three or four days; at

* A measure of one hundred cubits square.

† The *mun* of this country is sixteen *seers*, of eighty rupees weight each.

‡ The *mauny* contains twelve *muns* of this country's weight.

the end of which time there remains of dried root, one third or one fourth part of the original weight.

As the colouring matter resides chiefly in the bark of the root, the small twigs, which contain little wood, bear a higher price than the larger pieces. Therefore the roots, when dug up, are separated into three kinds, coarse, medium, and fine. The coarse sells for one rupee per *mun*, the medium two or three rupees, and the fine four rupees per *mun*, or four seers for a rupee.

In particular fields they leave trees for seed at the distance of four, five, or six cubits. In six years they yield fertile and vigorous seeds. The trees, when of that age, are about six inches in diameter, and twelve feet high (branches included); but they continue fruitful for many years, and are said to grow to a size not much inferior to that of a *Mango*-tree. When the fruit is ripe, it is gathered, laid in heaps on the ground, and covered up with straw, or other rubbish, for fifteen or twenty days, in which time the pulp rots, and is consumed. It is then put into a basket, and washed, by repeated effusions of water, to separate the seeds, and free them from the remains of the pulpy matter. The husbandman, who cultivates this plant, generally takes care to have on his ground a sufficient number of trees for seed. If he is unprovided with those, he may purchase the seed, immediately after it is prepared, for four or five rupees the *mun*; but if he neglects to purchase till the season of sowing arrives, he may be obliged to pay at the rate of two seers per rupee.

In the ground on which *Aal* has grown, they sow wheat, or other grain, for five or six years; and, it is observed, that the grain sown on this ground thrives remarkably: and while the trees left for seed continue small, grain of any kind may be sown in their interstices; but *Aal* would not thrive there.

The expence to the cultivator varies considerably in different villages. In one, where the plant is cultivated to considerable extent *, the pateil, or zemindar, gave me the following account of the expence attending the cultivation of one *beegah*:

To the Collector of the District	Rs	10
To the Pateil,	-	1
To Writers, &c. Servants of the Pateil,	0	10
To digging up the root †	-	15
Total,	26	10

* *Kbelána*, $7\frac{1}{2}$ miles from *Oujein*.

† For digging a space 16 cubits long, and $3\frac{1}{2}$ cubits broad, the labourers are paid $4\frac{1}{2}$ pice, at fifty to the rupee.

Now supposing, agreeably to the foregoing account, that a good crop is fix, and a bad one four, *maunies*; that each *mauny* yields, when dried, $3\frac{1}{2}$ *mun*s, and that in this dried root, the coarse at one rupee, the medium at two, and the fine at four, are in equal quantities; then, the value of the good crop will be forty-nine rupees, and that of the bad one 32, 10, 8. The first of these leaves Rupees 22, 6, the other Rs. 6, 0, 8, from each *beegab*. The medium, Rupees 14, 3, 4, we may estimate as the profit of the husbandman, out of which he is to maintain himself and his cattle for three years. In this account I have not included the expence of seed, as the cultivator is generally supplied with it from his own trees. Had he been obliged to purchase it, we must have added eight rupees to the expence of cultivation: but, as the crop sustains no damage by remaining in the ground, the cultivator can dig it up at his leisure; and therefore he generally saves by his own labour great part of the expence above stated for digging.

In another village *, the cultivator has the land on much easier terms; only paying three rupees for the crop, or one rupee yearly, to the collector. Therefore, the other expences being supposed the same, the crop only costs him Rs. 19, 10, besides his own maintenance and that of his cattle.

Besides the consumption of the root in the manufactures of this province, large quantities of it are exported to *Guzerat* and the northern parts of *Hindustan*. I have not been able to learn the exact value of this exportation, but have reason to believe that it amounts, annually, to some lacs of rupees. The dealers, who come from those places (especially *Guzerat*), to purchase, advance money to the cultivator, and, when the crop is ready, buy it, either on the ground, or after it is dug up. In the first case, they dig a small portion of the field, and, according to the quantity it yields, form a judgment on the value of the whole.

The method of dying with this root is as follows: The cloth to be dyed is thoroughly washed and scoured, with an extemporaneous kind of soap-ley, made by mixing the oil of sesamum with the fossil alkali. Then, supposing the cloth (which is generally of a thin texture) to be twenty-six cubits long, and one cubit broad, the quantities of ingredients will be as follows.

Take of large *Her* † in powder, three ounces. Mix it well with four pounds of water. In this the cloth is to be thoroughly wetted, so that the absorption of *Her*

* *Rindwafa*, about the same distance from *Oujein* as the former.

† The *Cebule*; *Myrobalani maximæ*, *oblongæ*, *angulosæ*. C.B.

may be as equal as possible. It is then to be squeezed, and spread in the sun for about forty-eight minutes, to dry, taking care that no drop of water fall upon it. The cloth, when dried, is of a cream-colour. It is kept in this state for four or five days, that the particles of the *Myrobalan* may be more firmly attached.

Then take of powdered alum, two ounces; dissolve it in ℥ ij of water. Wet the cloth thoroughly and equally in this solution. Wring it, and strike it gently on a smooth stone, then spread it, for twenty-four minutes, in the sun, to dry. When dried, it is of a pea-green colour. When perfectly dry, it is kept for four days, and then washed in cold water. To the manner and degree of washing, we are told, great attention is to be paid; as an error, either in excess or defect, would spoil the colour. When washed, it is dried in the sun.

The cloth thus prepared, is ready to receive the colour, which is prepared in the following manner. Put $3\frac{1}{2}$ gallons of water into an uncovered copper vessel, and set it on a gentle fire. When it is something more than lukewarm, put in the cloth, along with the colouring ingredients, which have previously been thus prepared. Take of *Aal*, from one to two seers, according to its quality, powder it, and rub it with two ounces of oil of *Sesamum* to each seer. Add of the flowers of *D,barwry**, one-eighth of a seer to each seer of *Aal*; or, instead of *D,barwry*, one ounce and a half of *Purwás*†, in powder.

The cloth and colouring ingredients are continued on the fire, with a gentle heat,

* A shrub, which grows wild on the hills, and on the banks of the rivulets, where they are formed of a grassy sod. The flowers are of a beautiful red colour, and are gathered both for the use of the dyers and of the apothecaries, who give an infusion of them as a cooling medicine. They lose their colour in drying, and only yield a slight brownish tincture to water; so that the benefit derived from them in dying with *Aal*, seems to depend merely on their action as an astringent; which is confirmed by the substitution of *Purwás*, a strong astringent, as an equivalent to *D,barwry*. The natural character of the *D,barwry* is as follows:

CAL. *Perianth* one-leaved, persistent; *Tube*, bellied; *Border*, six-cleft; the divisions lanced, erect.

COR. *Petals* six, lanced, acute, erect; a little longer than the calyx, arising from the edge of the *tube*, between the divisions of the calyx.

STAM. *Filaments* twelve (in some ten or eleven) awled, erect, longer than the calyx, and arising from it. *Anthers* kidney form, incumbent.

PIST. *Germ* oblong, two-furrowed. *Style* awled, ascending the length of the stamina. *Stigma* obtuse.

PERIC. *Capsule* ovate, acute, two-furrowed, two-celled, four-valved.

SEEDS numerous, very small: receptacle oblong.

LEAVES opposite, lanced.

Here the oblong shape of the capsule and its two cells agree with the *Lythrum*; the divisions of the calyx with the *Ginora*. LINNÆUS (Ph. Bot. § 177, 182, 183.) alleges that the calyx is more to be depended on than the Pericarpium in ascertaining the genera of plants. Therefore, agreeably to these aphorisms, I should be inclined to refer the *D,barwry* to the genus *Ginora*; but it may perhaps be considered as a new genus to be placed in the system between the *Lythrum* and *Ginora*.

† A kind of gall-nut, containing the exuviae of a small insect, found on a species of the *Mimosa*. In *Malwa* it is called *Purwás*, in *Marwar*, *Succour*, and in the country about *Mongbeer*, *Purwán*. This being a stronger astringent, we are told that an exact attention to the proportion of it is more necessary than to that of the *D,barwry*.

gradually

gradually increased, for about three hours. Towards the end, the water is made to boil strongly. By taking up a little of the water, and examining its colour, as it is dropped in the vessel, they judge of the success of the process. It ought to be of a clay-colour, or a little deeper. If it proves very red, the colour will be spoiled; and the remedy is, to add a larger proportion of *Dhawry*. During this process, the cloth is continually moved, by lifting part of it with a stick out of a vessel, beginning at one end and proceeding to the other. It is now taken out, wrung, and dried. After which, being washed in river-water, the red colour is complete. No. 1. is a specimen of this colour, which is valued more for its durability than its beauty.

To make a Dark Purple, or Chocolate Colour.

Take of martial vitriol one ounce, dissolve it in two pounds of water, and clear the solution by decantation. Mix, with a quantity of the above-described colouring decoction, sufficient to wet the cloth, such a proportion of this martial solution as will give the tint required. This is judged of by inspection, as the cloth will be of the same colour with the mixture. The cloth being taken out of the colouring decoction and wrung, is to be dipped into this mixture, and thoroughly wetted, so as to absorb the colour equally and completely. Then, being dyed and washed, its appearance resembles that of the specimens No. 2 and 3; but the tints admit of a great variety, according to the proportions of the martial solution. Both these colours are very durable, being little affected by washing. One of the quarters of *Oujein*, named *Jesingpoorah*, is inhabited by dyers, who consume great quantities of this root. Their printed and stained cloths, besides supplying the domestic consumption, are exported to *Guzerat*, and other provinces.

ON THE INHABITANTS OF THE HILLS NEAR RAJAMAHALL.

By Lieutenant THOMAS SHAW.

A SLIGHT knowledge of the language of the natives of the hills, in the districts of *Bhagalpur* and *Rajamahall*, having brought to my observation, that their customs

customs and manners, as well as their language, differed from those of the inhabitants of the neighbouring plains; I have, for some time, endeavoured to acquire a good account of them, from the belief that, notwithstanding their connexion with, and dependance on our government, they have been little known beyond the limits of the hills. The following description does not contain much more than a bare translation of what was written by the best informed mountaineer, whom I have met with: I have spared no pains to render it faithful, for there alone it can have any merit. My information has been derived through a *Soubadar* of the *Rangers* (whom the late Mr. CLEVELAND had instructed in writing *Nagree*), as far as relates to the inhabitants of the hills in the three *Tuppabs* of *Mudjeway*, *Gburry*, and *Munnuáry*. The first is to the south-west of *Rájamaball*, extending as far as *Sicrigully*; the second is thence in a westerly direction, as far as *Shawabad*; and the third lies to the south of *Gburry*, from whose people those on the borders of *Bbeerboom*, and south-east of *Rájamaball*, differ in many respects. Whatever was material in these latter *Tuppabs*, was related by a *Soubadar* from that quarter to the one who can write; and both attended me in translating them. The *Tuppabs* of *Mudbun*, *Pyer*, *Chitoleah*, *Barcope*, *Putfundaw*, *Jumnee*, *Hurnab*, *Par*, *Dumsai*, *Kuneeallah*, and others, have customs also peculiar to themselves. These I shall endeavour to ascertain.

The following relates immediately to the *Tuppabs* of *Mudjeway*, *Gburry*, and *Muanuary*, from which may be collected, what ideas the inhabitants have of one Supreme Being, of a future state, and of transmigration. It is true they worship many gods, but these are considered inferior to, and the medium of adoration of, one all-powerful and omniscient Being; whom they call *BEDO GOSSAIIH*, or the Great God. Their opinions on the metempsychosis, it is probable, have been borrowed from the *Hindus*, though they profess no particular veneration for the cow, or any other animal; for they believe it a punishment, when God ordains a human soul to transmigrate into any of the brute creation; and it is also a received opinion that for certain crimes in this life, souls are condemned to the vegetable world.

The natives of the hills in these *Tuppabs*, having no knowledge of letters, or of any character, have a traditional story, brought down from father to son (but in what age it was received, is now not known), that the *BEDO GOSSAIIH* made heaven and earth, and all that is therein. To people the latter, seven brothers were sent from heaven: at first they remained together; when the eldest brother was sick, the six younger collected all manner of eatables, which they agreed to divide,
and

and to separate, to go into different countries; one, a *Hindu*, got fish and goats' flesh in a new dish, for his share; a second, a *Mussulman*, was allotted fish, fowl, and every sort of flesh, except hogs, for his portion, in a new dish also; a third, *Kirwary*, a fourth, *Keerrateer*, got hogs' flesh, also in a new dish; a fifth, *Kawdeer*, got all sorts of flesh, fish, and fowl, in a new dish; a sixth, who was destined for a foreign country, got some of every sort of food, in a new dish, and after his departure, it was not known, what had become of him, till *Europeans* made their appearance, when, from their manner of living, it was concluded that they were the descendants of the sixth brother; the seventh, *Mullare*, who was the oldest, and sick brother, got some of every kind of food, but put them in an old dish, for which he was considered an outcast, and ordered to inhabit these hills, where finding neither clothes, nor subsistence, he and his descendants necessarily became thieves, in which practice they continued, till such time as Mr. CLEVELAND wisely conciliated their attachment to the *English* government, by a liberal generosity and munificence, while he entered their hills unattended, putting the utmost confidence in their faith; and made engagements to settle on their chiefs an inconsiderable monthly sum, in consideration of their good and peaceable behaviour and obedience, to which they have rigidly adhered; and this, it is related, put an end to their predatory incursions and marauding. The *Kirwary* cast crossed the *Ganges* and lived in tents, having no settled habitation. The *Hindu* and *Mussulman* remained in this country. The *Kawdeer* went to the south, and this remained doubtful, till a party of them came to dig a tank for Mr. CLEVELAND. The *Kirrateer* went to the hills north of the *Ganges*. I cannot learn what names the brothers had, nor how they were provided with wives, to increase and multiply; the creation of women does not bear any part in this defective account, which proceeds to relate, that GOD the Creator directed certain wombs to be fruitful. His commandments are, that men should give to such as will receive, and that in like manner others would give to them. By labour men must live; for this their hands were made; eyes were given to see with, the mouth to speak good or bad, as well as to eat sweet and sour, and the feet to walk. Abuse nobody without cause; neither kill, nor punish, without a crime, or GOD will destroy you. These commands being sent, certain wombs were fruitful. But some men forgetting these divine ordinances, abused, beat, and oppressed each other without cause; when, the measure of their crimes being full, he summons them to his presence; the messenger carries sickness and death: On the sinner's appearing
before

before GOD, being charged with forgetting his commandments, he is bound and cast into pits of maggots, or pits of fire, where he is to remain eternally.

Whoever keeps GOD's commandments, behaves well in all respects. He will neither injure, abuse, beat, nor kill, any person, nor seize their effects, nor plunder them, nor waste their grain, nor their money, nor their clothes, nor quarrel with any one; but praises GOD morning and evening; which last, the women also do. He will be charitable, clothe and feed the poor, and observes the festivals in GOD's name, with the proper expense of grain, money, and clothes. GOD, for the just disposal of the goods he had granted, for keeping his commandments, and praying, summons the righteous person into his presence, on his having enjoyed this world long enough. On his appearance, he is asked how he dealt with men, and how they behaved to him. Having rendered his account, as well of what he bestowed and received, as of what he ate; that he injured nobody, but praised GOD morning and evening; GOD answers, "I saw that you behaved well, and kept my commandments; I will exalt you; in the mean time remain with me." After a short sojourn, he is sent to earth, to be born of woman again, and to be a *Raja*, *Dewan*, or *Cutwall*, with abundance of worldly goods and territory. Should he forget to praise GOD in his exaltation, and give not meat to the hungry, but oppress the poor, GOD, in his wrath, will destroy him, snatch him away, and accuse him of neglecting his commandments, and forgetting to praise him. He will then cast him into a pit of fire, where, should not his punishment be eternal, he will not allow him to be born again of woman, but to be regenerated in the shape of a dog or a cat.

Whoever offends in the presence of GOD, is dismissed to this earth, to be born of women, either blind, lame, or in poverty, never to have house, clothes, or victuals, nor any thing but what is begged from door to door. Should a person possessed of rank, grain, clothes, land, and every thing he could want, forget GOD's commandments, seize and plunder from others; GOD, in his wrath for the abuse of the good things which he had bestowed, will make him poor and a beggar, and having decreed, that he shall remain a certain time on earth, for his punishment, this being fulfilled, death snatches him away, and he appears in the presence of GOD. GOD orders a man to kill another, and he kills him, yet lives happily and content, but no one must, from his own will and pleasure, destroy a fellow creature, or GOD will destroy him. GOD orders a man to beat another, and he beats him; but whoever

punishes

punishes a fellow-creature, without divine commands, the Supreme Being will direct a third person to punish the offender. No person shall abuse another without God's commands; whoever disobeys, will in like manner be abused by a third person.

Whoever without GOD's commands injures his neighbour, may expect divine retaliation. Should a man seeing his neighbour's property, plunder or steal it, the BEDO GOSSAIH, will either order him to be punished, in like manner, or some of his family to die. Should you see a man lame, mock not at his misfortune, lest GOD should make you lame, or punish you in some other manner. Laugh not at a man who has the misfortune to be blind, or GOD will afflict you in like manner, or some other way. It has pleased Providence that a man should have his back broken; whoever laughs at or mocks him, will be afflicted in like manner; GOD will make him blind, or lame, or poor; therefore mock not the unfortunate. If GOD had made the lame, the blind, the broken backed or poor, to be laughed at, he would have pardoned such as mocked them; but as their defects are punishments, those who are perfect should not deride their misfortunes. Those on whom GOD bestows grain, riches, land and power, ought to be charitable, and to cherish the unfortunate; should they, notwithstanding their wealth, be uncharitable, Providence will punish them, by rendering them poor, and reducing them to the necessity of working for their bread: When great men are charitable, GOD will protect them.

GOD directs the poor to the rich man's door to beg; should the latter uncharitably refuse to relieve their wants, Providence will be displeased at the abuse of the good things which he had bestowed, and will render the rich man poor, helpless, and destroy his family. GOD can exalt the poor man: Such are the dispensations and power of Providence. A man robs and kills another, and casts the body away to conceal the murder from the relations of the deceased, who conceive their kinsman to have been killed by a snake or a tiger, but GOD cannot be deceived: vengeance will fall on the murderer, or his relations; he, or some of them, will fall a sacrifice to a tiger or a snake; divine vengeance will surely await him. Whoever kills a tiger without divine orders, will either himself, or some of his relations, fall a sacrifice to a tiger.

From such superstition, the natives of the hills are averse to killing a tiger, unless one of their relations has been carried off by one, when they go out for that purpose, and having succeeded, their bows and arrows are laid on the body of the animal,

mal, they invoke GOD, and declare that they killed it, to retaliate for the loss of a relation: Vengeance thus satisfied, they vow not to attack a tiger, without the provocation of losing a kinsman.

GOD sends a messenger to summon a person to his presence: should the messenger mistake his object, and carry off another, he is desired by the Deity to take him away; but as the earthly mansion of this soul must be decayed, it is destined to remain midway between heaven and earth, and never can return to the presence of GOD. Whoever commits homicide without divine orders, can never appear in the presence of the Deity; his soul is destined to remain mid-way between heaven and earth. Whoever is killed by a snake, as a punishment for some concealed crime, can never appear in the presence of the Deity; his soul is doomed to remain mid-way between heaven and earth; yet GOD will destroy the snake: but, if it acted by Divine orders, Providence spares it. Should a rich man call the poor with promises of giving them alms, and not perform them, and should the poor exhort GOD to make him poor too, for his uncharitable deceit, Providence will either punish him in this way, or some other; but by penance and prayer, he may be pardoned. As a man marries a woman at a great expence, should she be guilty of infidelity, and conceal the sin she had committed, which is the greatest aggravation of it, GOD will be incensed and punish her, by making her sick, lame, or blind. Whoever commits fornication and conceals it, may dread divine vengeance: to avert falling sick, or being otherwise punished for his crime; he must avow it, pray to be forgiven, and sacrifice a goat at *Dewarry Nad*, the shrine of their household GOD, the blood of which is to be sprinkled over the linen, to purify him. If a man casts a lustful eye on his neighbour's wife, GOD will punish him; for it is forbidden. Whoever takes poison and dies, can never go to Heaven: his soul will be doomed to wander eternally; he will be convulsed and vomit; with no more than the daily allowance of as much rice as can be put on an *aurā*-leaf (which is smaller than the *tamarind* leaf), and as much water. Whoever hangs himself, shall never appear in the presence of GOD; his soul will have no place assigned it, but he will be doomed to wander eternally with a rope about his neck. Whoever drowns himself, shall never appear in the presence of GOD; his soul shall remain mid-way between heaven and earth; and GOD has ordained, that whoever drowns himself, shall be doomed to work eternally, day and night, without intermission, to make the crooked banks of a river strait, where the stream ever undermines, as fast as the labourers incessantly work. Whoever, undirected by the Deity, has the misfortune of being
killed

killed by a fall from a tree, his soul is received into the kingdom of heaven, but not admitted into the presence of the Almighty: it is, however, served with such things as are provided for the righteous. Whoever receives favours, and is guilty of the ingratitude of abusing his benefactor, will not be well treated in other places: GOD will expose him to misery for his ingratitude. Whoever falls in battle, is well received by GOD, and fares sumptuously; for the Deity is pleased with his fate. Whoever is lost travelling by water, is well received in Heaven: the Deity will take him unto himself.

The *Demauno*, or *Dewaffy*, seems to be more of an oracle, than a priest. Those who wish to initiate themselves, represent, that by dreaming they can foretell what will happen; that the BEDO GOSAIH appears to them nightly, and braids their hair, from which it grows remarkably long: they must never cut it; as it is believed, if such an act did not prove fatal to them, that, at least, their dreams would no longer be prophetic. This oracle foretells to one person, that he shall have a plentiful harvest; to another, that he shall become rich; a third is told, that he is to fall sick; a fourth, that he shall die; a fifth, that he shall be successful in hunting. A family is admonished to sacrifice and pray at a certain shrine, to appease an offended GOD; he prophecies when there will be a scarcity, and when it will rain. Thus, his predictions being verified, the people have faith in them; and one, who is sick, attends him for advice, which is afforded the following morning, when the *Demauno* has dreamt of the case, or GOD, having appeared to him in his vision, informed him what will be the fate of the patient, and what he must do to get well. Another informs him, his crops are not so good as usual, and desires to know which GOD is offended, and what he must do to appease him. A sportsman informs him, that he is not so fortunate as usual, and seeks to know what he must do to be so. Some ask, at what shrine they must make their offerings. All who consult this oracle must make a present, and return the following day for an answer. On the first full moon of *January*, after his inspiration, he sallies out of his house, runs about, and pretends to be frantick: but neither injures or speaks to any one. He approaches the door of his chief, and makes signs to have a cock, and a hen's egg, brought to him: the latter he immediately eats, and wringing off the head of the cock, sucks the reeking blood, and throws away the body; whence he proceeds to unfrequented rivers and jungles, where he remains seven, or nine days, and is supposed to be fed by the Deity, whom he represents on his return, and when his reason is restored, to have treated him sumptuously; that God had

sometimes seated him on a large snake, and, at others, made him put his hand into the mouth of a large tiger; but without fear of any danger. On the *Demauno's* emerging from his retreat, he brings with him a large *plantain*-tree, which he had torn up by the roots, and places it on the roof of his house; then returns, and brings in a large *feedee*-tree; again, brings in a *muckmun*-tree; and lastly, a *seege*-tree; all of which, to the astonishment of the people, he, without human assistance, places, in like manner, on the roof of his house. It is to be understood, that these trees are too large for one man to pluck from their roots and carry; and that the *seege*-tree is full of thorns, which cannot be touched with impunity; but, by divine aid, he effects these wonders. On the night of his return, he represents, that the *BEDO GOSSAIIH* appears to him in a vision, and desires him to sacrifice a pigeon or a cock to him, with prayers. Accordingly, in the morning, having recovered his senses, he takes some oil to besmear the trees he had deposited on the roof of his house, and some red paint to make streaks on them; over this he scatters some undressed rice, and lastly, sacrifices the pigeon, so that the blood may fall on the trees; and, during this ceremony, he prays.

Henceforward he must never sit with or touch any woman but his wife; should any other woman even touch him by accident, it is supposed his predictions would fail; or, should he marry more than one wife at a time, the people would have no faith in him. Having thus passed his noviciate, and obtained the reputation of a good *Demauno*, he is invited by his chief to the buffalo-festival, who puts round his neck a red silk thread, with five cowries strung on it, and binds a turban on his head, beseeching GOD that he may have power of restoring health to the sick, exorcising such as are possessed of devils, and that all his predictions may prove true. In this manner he is ordained, and officiates at the festival. A *Demauno* drinks of the reeking blood of all offerings sacrificed while he is present. He must never eat beef, or *dbai*, nor drink milk; for, in doing so, his prophecies would fail. There is no fixed number of *Demaunos* for the duty of a village: some have several, while others have none. The *Maungy* of every village sacrifices a buffalo in either the month of *Maug*, or *Phagun*, annually: he fixes a day, and desires his vassals to attend, each of whom contributes a portion of grain, oil, or spirits, for the festival: provisions being collected on the day appointed, the *Maungy* directs his followers what to do. Some cook, others go and cut a large branch of the *muckmun* (or *sic-wa*) tree, which is brought, and planted before the *Maungy's* door, one of whose family carries out the *kundone* (a sacred stool, with feet) and places it under the shade

shade of the *muckmun*-branch, washes it, rubs it with oil, spots it with (*sowndra*) red paint, and binds it with a thread of red silk; the *Maungy*, having made his *salám* to the stool, sits on it; the *Demauno*, or priest, sits on the ground to his left, and prays first; after which he gives the *Maungy* a handful of unboiled rice, which he scatters close to the *muckmun*-branch, addressing himself to GOD, to protect him and his dependents, and to be propitious to them, adding a vow to perform and hold this festival annually. During the time of praying, the *Maungy*'s drums are beating, that all within hearing, who are possessed of devils, may run, and pick up the rice to eat: having gathered it all, they are seized, bound, and taken to a small distance from the altar, when the buffalo, with ropes on all his legs well secured, is hamstrung by the *Maungy*, to entertain his barbarous followers, in order that they may be diverted by his struggles and exertions, in forcing him to the *muckmun*-branch, where his head is cut off; and the persons possessed of devils, who were bound, are set at liberty, and immediately rush forward to take up the buffalo's blood, and lick it while reeking. When they are supposed to have enough, they are besprinkled with water, which renders them completely exorcised, and they retire to a stream to bathe: the adherents come forward with their offerings of rice, oil, and spirits, and receive a blessing from their chief, who has the buffalo's head dressed, and eats it with the priests and musicians: the *kundone* being taken into the house, puts an end to the ceremony of the day. The next morning the adherents assemble to feast on the buffalo and other things which the *Maungy* furnishes. At the expiration of five days a fowl is immolated, and the blood sprinkled on the *muckmun*-branch, which is taken up, and with the horns and some of the bones of the buffalo, is fastened on the roof of the *Maungy*'s house, where they are left to decay; in some places stages are erected for these sacred fragments, at the north-east angle of the *Maungy*'s house. The chief *Maungy* of a *tuppab* (which is a number of hills that have villages on them), whose authority is acknowledged by the *Maungies* of the several villages in his limits, appoints a time annually to pray, that they may have rain enough for their crops. This festival may be held in any month of the year, except *Poos*, in which they neither marry, build a house, nor undertake any thing of consequence, considering it an unlucky month. The chief of the *tuppab* having determined on a day, sends an *arra* to the *Maungy* of each village, desiring him to attend with twenty or thirty of his men by the day fixed on: when assembled they all repair to the place established without the village, for the ceremony of the *Satane*: having planted a small branch of the *chagulno* (*bale-tree*), the head of a goat is severed with a sword, that the blood may fall

fall on the leaves of the *chagulno*: the *Satane* is then resorted to, to ascertain what chief will be most acceptable to the GOD of Rain, to pray to on this occasion; this being settled, a day is named for prayer, upon which all the *Maungies*, with their vassals, assemble at their chief's, before whose door the *Demauno* and *Maungy*, on whom the *Satane* election has fallen, pray: after which a buffalo is sacrificed, and the same forms observed as described in the buffalo-festival: it continues as long as the provisions which were presented by the several *Maungies* last. The danger of a scarcity is thus supposed to be averted, and that their crops will flourish.

When a *Maungy* has established a village, should a tiger infest it, or the small-pox, or any plague prove fatal to its inhabitants, it is supposed that RUXEY GOSAIN is desirous of having a shrine raised. The *Satane* is resorted to, to confirm the supposition, and the *Demauno* consulted. On both agreeing, these steps are sufficient to stop the ravages of any beast of prey, and to avert any further fatality from the small-pox. Thus relieved, the *Maungy* calls the *Demauno* to get *ruxey* (a sacred black stone) for him; in compliance with which the *Demauno* has a vision, in which the Deity appears to him, and informs him where the god RUXEY is to be found, directs him to the spot, and desires him to raise him with his own hands, and to present him to the *Maungy* in the morning. The *Demauno* gets a branch of the *feedee* (a tree peculiar to the hills); benjamin is burned before the *Maungy's* door, which he smells, and proceeds, followed by some men, to the spot where RUXEY is to be found; having smelt the godhead, he directs the persons who were in attendance to dig for him; to facilitate their work, water is thrown, to soften the earth; and when RUXEY is discovered, the *Demauno* takes him up, and carries him to the *Maungy*, who immediately sets out, with his divine present, in search of a large tree, about half a mile, or less, from the village, under the shade of which he places it, and encloses it by a fence of stones, and a hedge of *seege*: a fowl and a goat are sacrificed to the god, whom the *Maungy*, or some other acceptable person (and it is the object of the *Satane* to find out who is most virtuous and most worthy to address the god), worships and retires.

At any other time when this god is worshipped, a fowl and goat are sacrificed; and the *Maungy*, or person who prays, is attended by two drummers and an old man, who has no wife, and, from age, has no connexion with women, to partake of the offerings with the preacher; of which others, who have forsworn all connexion with women and drinking intoxicating liquors, may share. Whoever violates this vow by drinking or cohabiting with women, it is believed will become foolish; yet he may recover his reason by asking pardon of the god, and by offering a fowl and
goat,

goat, with prayer in sacrifice at the shrine; but he can never be a *Hook Moko*, or an elect eater, again.

Idle men and women must not approach or profane the place where RUXEY is deposited, by spitting towards him, or by doing any uncleanly act near it: should any person, through forgetfulness, or ignorance, be guilty of any such acts, by spitting, he will get a sore mouth; and other more offensive transgressions are productive of a strangury, or flux, respectively; and these diseases are often considered as the effects of some heedless transgression of the above nature, which is discovered by the *Satane*, or such-like proof: their remedy is to give a fowl to the *Maungy*, who makes an offering of it to the god, who is thus appeased. If the patient recovers, well; if not, the friends go to a neighbouring village, to find out, by the *Satane*, the cause of their relation's illness: if he is not thus relieved, they go to a second; and, on failing, they consider it as an affliction by the dispensation of the Supreme Being, who will either spare, shorten, or prolong the life of the offending patient, according to his will.

The *Chitaria*-festival is held but once in three years. The celebration of it so seldom is, probably, from its being very expensive to the *Maungy*, who bears the charge. It is not every village that has a *Chalnad*, though he is considered as the God that presides over the welfare of villages; but, like RUXEY NAD, he is not supposed to be essential to their happiness till the inhabitants are harassed by some plague or pestilence; when the *Demauno*, on being consulted, informs the *Maungy* that this Deity is desirous of having a *Nad* raised; that effecting this, and worshipping him, will put an end to their misfortunes. The *Demauno* then dreams of the place where this shrine is to be found, in the shape of a black stone; he proceeds in the morning to discover it, observing the same forms as are described in obtaining RUXEY NAD; when found, the stone is placed under the shade of a *muckmun*-tree contiguous to the village, and undergoes no alteration in its form from the chiffer.

Among the preparations for the *Chitaria*-festival, the *Maungy* must provide a cow, and a piece of red silk, previous to the day fixed for prayer. The *Satane*, as usual, is performed, to find out what two of the *Maungy*'s vassals will be most acceptable to the god-head to pray. This point being settled, and every thing ready, a day is fixed; on the eve of this holiday, the piece of silk is cut in two, and one part given to one of the wives of each of the preachers, with whom their husbands have not cohabited for ten or fifteen days previously. The *Demauno*, *Maungy*,
Cutwal,

Cutwal, *Pbojedar*, *Jemmadars*, and *Bundareens*, having been invited into one of the preachers' houses, the *Demauno* gives water to two *Kalewars*, one *Dolewar*, one *Mangeera*, and one *Jelaum*, to wash their hands; and these musicians are taken into the house: a feast is served, of which all present partake, as soon as the chiefs have thrown a little of each dish away, in the name of CHALNAD. I must here digress, to observe, that it is a custom through all the hills, to throw a little of their meat away at every meal, previous to their eating; and the same rule is observed in drinking, the intention of which is to avert any bad consequence from any devil or evil spirit having defiled it. The *Bandareens*, whose particular province it is, at all festivals, to serve out the *toddy*, or spirits, perform that office; and the chiefs, having spilled a little also in the name of CHALNAD for a libation, the party drink and sing all night, in praise of CHITARIAH GOSAIH, invoking his protection, the musicians, or rather drummers, beating at the same time; should any person sing a different song, he is fined a fowl, which is sacrificed, and the blood sprinkled over the whole party; during the course of the night, they patrol the village five times, leading a cow with them; in the morning the *Demauno*, the two preachers and drummers, proceed to *Chalnad* with the cow; having finished their prayers, the cow is sacrificed by one of the preachers, in such a manner that the blood may fall on the shrine; a feast is immediately made of the flesh, and all the men who accompanied them from the village, except such as may be disqualified from domestic causes, partake of it. On their return to the village, they send notice of their approach, that the two wives of the preachers, between whom the piece of silk was divided, may take off their clothes and ornaments, and tie the silk round their middles, covering them from their waists to their knees; their hair is fastened in a knot on the crown of their heads, and every part of their body, which is exposed, is spotted with a mixture made of turmeric powdered, and the heart, or white part of *Indian* corn, which is finely ground for that purpose: part of this is also sent to the preachers, that they may be spotted in the same manner, and with it the halves of four mats thus prepared. The two women (the whole village, men, women, and children, being assembled to see the procession) set out, one following the other, and taking care not to advance the foot which is up beyond the toe of that on the ground, to meet the preachers, who observe the same pace as their wives; and the mats, as the parties pass over them, are always taken up and placed again before; having passed each other, the women take place behind the men, and follow them by the same step at which they at first set out, to the house of one of the

the preachers ; when arrived, the men taking one side, and the women the other, they wash and change their clothes : here the ceremony ends ; and the preachers, with their wives, are invited to a feast at the *Maungy*'s.

The above is the only festival where women can assist, or bear any part, as a woman never prays in public on these hills : it has before been said, that they are to recommend themselves to the protection of the Supreme Being, morning and night. During the time of the above festival, the compliment of a *salam* is not paid to any person.

POW GOSAIH, or the God of the Road, or Highway, is the first worship young men perform, though it is not undertaken till some accident has induced the person to consult the *Cberreen*, or *Satane*, whether his praying and making an offering will be acceptable. This trial is perhaps of itself sufficient to confirm the opinion, that POW GOSAIH is offended ; therefore the young suppliant vows to worship him. On the day of thanksgiving, on which the new *Takaloo* is first eaten of, or on the day appointed for the new *Kosarane*-harvest, he proceeds to a high road, and cleans and washes a small space, under the shade of a young *bale*-tree : in the centre of this he plants a branch of the *muckmun*-tree ; round it he makes marks and spots with red paint and with a handful of rice, which he lays close to the branch, placing a hen's egg on it, on which three streaks of red paint were drawn, he invokes the Supreme Being, and God of the Road, to protect him while travelling, and sacrifices a cock, the blood of which is thrown on the *muckmun*-branch : the offering, being dressed with rice, is eaten by the suppliant and such as may have attended him : the ceremony ends by breaking the hen's egg, and is never repeated by him unless he should again meet with some accident while travelling, on which the *Cberreen*, or *Satane*, is resorted to, for a confirmation of the apprehension, that it was caused by POW GOSAIH's resentment, and his desire of being worshipped.

DEWARY GOSAIH, or the god, who is supposed to preside over the welfare of families, is the second worship that men perform ; there is no fixed time for it : he who discovers by the *Cberreen*, or *Satane*, that the welfare of himself and family depends on his holding this festival, distils spirits, purchases a hog, rice, red-paint, and oil ; and, having fixed on a day, invites his *Maungy* and friends on the day appointed : a small space before the threshold is brushed and washed, and a branch of the *muckmun* planted in it : on this some red paint is put, as well as marks made round it. The *Maungy* and his officers are taken into the suppliant's house, when pots of spirits and provisions are given to the former, as well as meat and drink to all

all the company : after a short repast, the suppliant, with a hen's egg and a handful of rice, approaches the *muckmun*-branch, close to which the former is deposited on the latter : during this ceremony, he implores the Supreme Being and DEWARY GOSAIH to be propitious to him and his family. The hog is sacrificed by a relation, as an offering to DEWARY GOSAIH, with professions of again observing the festival whenever DEWARY GOSAIH may desire it. A feast is made with the oblation, and, at the conclusion, the suppliant breaks the egg, and pulls up the *muckmun*-branch, which he places on the roof of his house.

KULL GOSAIH, or the CERES of the mountaineers, is worshipped annually by cultivators, in the season of sowing their fields : the proper time is ascertained by consulting the *Demauno*, and confirmed by either the *Cberreen*, or *Satane*, and is attended with more or less expence, according to the means of the suppliant ; if poor, it is deemed sufficient to make an offering of a cock ; those who can afford it purchase a cut hog, and a cut goat, distil spirits, buy rice, red paint, and oil, and invite the *Demauno* to assist them in praying, as well as their friends, chiefs, and neighbours, to a feast. On the day appointed the *Demauno* goes early to aid in distilling spirits, and in other preparations for the feast : the chiefs and others, having entered the suppliant's house, are presented with meat, and spirituous liquors to drink : the *Demauno* is also introduced with two *Kalewars*, and one *Dolewar* : he, and the suppliant, and the *Maungy*, facing the middle supporter of the house, pray for the welfare of the master, making a libation, and throwing down some meat, in the name of GOOMO GOSAIH, and of KULL GOSAIH : the *Demauno* and suppliant burn incense, while the *Kalewars* and *Dolewar* beat, and the *Maungy* and chiefs eat and drink : after this, the suppliant proceeds, with the *Demauno*, musicians, and all who may be disposed to join in the procession, to his field, where, at the stump of a tree, having cleaned a small space, and planted a branch of the *muckmun*, and prayed with the forms already described, burning incense ; the goat and hog are sacrificed by a relation of the suppliant's (who gets a rupee and a turban for this sacred office) so that some of the blood may fall on the *muckmun*-branch, and of which the *Demauno* pretends to drink a considerable quantity : he gives out that the blood digests in his throat, and does not pass into his stomach.

Of each of these offerings, the *Maungy* is presented with a fore-quarter for his family, and of the remainder all, except such whose wives are in their separation, partake ; at the conclusion, the *Demauno* gives water to the musicians, and the suppliant, to wash their hands, who return with the latter, and feast and drink at his house.

house as long as any fragment of the provisions, which had been prepared for the festival, remains.

The *Demauno* having desired any person to worship GOOMO GOSAIN, and the *Cherreen*, or *Satane*, having confirmed his ordinance, the suppliant must rear a cut kid, and cut pig, for that express purpose, about two years, more or less: having acquired property enough to perform his promise, for it is attended with considerable expence, he sends invitations to his chief and vassals, to those also in the neighbourhood, and to his relations; and, to mark the time for the festival, a string, with a number of knots equal to the number of days that will intervene, is sent to each; from these strings, to avert mistakes, one knot is daily cut: in the interval the suppliant is employed in distilling spirits, and collecting materials, such as rice, oil, red paint, &c. when one knot remains, the guests assemble, and, on the morning of the day appointed, some of the suppliant's neighbours, or relations, proceed to the jungles to cut three small *muckmun*-trees: before the first is hewn, a cock is sacrificed, that the blood may fall on it, and some spirits thrown on it, as a libation to GOOMO: as soon as the branches and bark are stripped off, two men are sufficient to carry each tree, and lay them without the village, where it is their business to prevent, men, goats, or fowls, from touching them; and the suppliant, informed of their arrival, sends them drink for their trouble; in the mean time, he takes the chiefs, and their officers, with the two men who had prayed at the *Chittaria*-festival, into his house, and presents the *Maungy* with two pots of spirits and a hog; the *Demauno*, two *Kalewars*, and a *Dolewar*, also go in: at their entrance, the *Demauno* gives water to the musicians to wash their hands; he takes a small wicker basket, containing about a *seer* of rice, on which he puts red paint, and places it with two pans near the middle supporter. During this the *Kalewars* and *Dolewar* beat, and incense is burning; the *Maungy* having made a libation, thrown out some meat, and sacrificed the hog, in the name of their gods, he and the chiefs eat and drink.

The *Demauno*, suppliant, and musicians, repair to where the trees are; whence the trees are brought home, laid lengthwise, east and west, cut the proper length, and the suppliant and his wife sprinkle turmeric-water on them; the *Demauno*, mounting astride on the one which had been first cut, is carried five times round the house, when they are taken in, and, some earth being dug, are united to the middle supporter (which is called *Goomo*), being first spotted with red paint, and bound with a red silk thread. Incense is burned; and the *Demauno*, with a hand-

ful of rice, prays, laying the rice down, and placing a hen's egg on it, which had been previously thrice streaked with red paint: the suppliant, receiving a handful of rice from the *Demauno*, also prays, throwing it on the egg, when one of his relations brings up the fat goat, and sacrifices it so that the blood may fall on the *Goomo*. For this sacred office he gets a rupee and a turban. The *Demauno*, suppliant, and musicians, and all who may be disposed to be of the procession, proceed to a field, where, sweeping and washing near the stump of a tree, they plant the branch of a *muckmun*, and round it and on it make streaks of red paint: incense is then burned, and with a handful of rice and a hen's egg, the *Demauno* and suppliant repeat the prayers and ceremony which had been observed in the house, when the fat hog and another goat are sacrificed by a relation. Some of the blood of these animals must fall on the *muckmun*, and the *Demauno* drinks of it.

A fore quarter of each of the offerings being sent to the *Maungy*, they feast and return: previous to entering the suppliant's house, the *Demauno* gives him and the musicians water to wash their hands. The relations of the suppliant attend him, present him with spirits and a cock each, and anoint him, his wives, and children, with oil: he sacrifices the cocks, makes a libation, and throws away some meat in the name of GOOMO: they feast and drink for two or three days, and then repair to their homes. On the fifth day the ceremony concludes, by the suppliant's sacrificing a cock to GOOMO GOSAIH, and another to KULL GOSAIH.

GOOMO GOSAIH is also worshipped as above, with this difference, that the suppliant does not eat, drink, or smoke in his house, or partake of any thing that had been in his house, for several days before the festival; nor is he allowed to partake of the offerings: and this prohibition continues for five days after the festival, which is called *Oogofs* GOOMO GOSAIH.

The worship of CHUMDAH GOSAIH is so expensive, that none but chiefs, or men of property, can ever afford it, and these not oftener than once in three years; and therefore the votaries to this shrine most frequently exceed that period for so expensive a ceremony. They first consult the *Demauno*, and have recourse to the *Cberreen* and *Satane*; both of which must agree with what the *Demauno* prescribes, before this festival can be held: when thus ordained, the suppliant must provide about a dozen hogs, as many goats, about three score seers of rice, two of red paint, fifteen of oil; about twelve rupees must be expended in spirits, and some scores of cooking pots, dishes, and cups for drinking, laid in, as well as a few peacocks' tails, a fan, three bamboos, nine score *natâria*-trees, and some red stones, which are
ground

ground for paint, and also some charcoal. Thus prepared, the suppliant sends strings, with knots numbering the intervening days, with invitations to his relations and neighbouring chiefs. On the day appointed some thousands assemble, and are variously employed. Some grind the red stone for paint, others charcoal to mix with oil, while a great number are occupied in stripping the bark off the *natária*, which is effected in one piece of four cubits long, by bruising it; three bamboos are then made straight by oil and fire, and are of the same length with the *natária*-bark; a fat hog, grain, and several pots of spirits, are sent to the workers. The red stone and charcoal being ground, are mixed separately with oil, and a quantity of hogs' blood added to both: the barks of the *natária* have about a cubit of the lower end of each blackened with the charcoal, another cubit is left of the natural colour, and above it one cubit is painted red; caps of wood are fitted on the bamboos, and necks made in them: on one of these, four score and an half of barks are bound with twine dipped in oil; on the second, three score are bound, and on the third, one score and a half; the heads of these three are ornamented with a profusion of peacocks' tail feathers, thus prepared; they are called CHUMDAH GOSAIH, and carried to the suppliant's house, where for the workmen a hog is dressed with grain, that they may be feasted for their trouble: a hog, two pots of spirits, grain, and salt, are presented to every chief, for himself and vassals, who honours the suppliant with his company; as much is also given to his own relations, and a like quantity to the relations of his wives, and meat and drink is distributed to all assembled. The women, who dress these provisions, exclusive of their daily hire, have a hog given to them, that they may eat together, as they are not allowed to feast with the men.

The *Chumdab*-bamboos having been brought about evening, and placed against the suppliant's house, he and the *Demauno* rub the ends on the ground with oil, and mark them with red paint; when the latter, with a hen's egg and a handful of rice, prays, observing the usual ceremony, that CHUMDAH GOSAIH may be propitious to the suppliant, who follows his example, and also makes an offering of a cut hog, which he sacrifices so that the blood may fall on the bamboos; the largest of which, or one with the greatest number of barks pendant to it, he presents to one of his relations; the second in size to one of his wife's relations; and the third to any volunteer. The three persons thus favoured, support the *Chumdabs* by cloth tied round their waists, and balance them with their hands, dancing as long as they can: when fatigued, they are relieved indiscriminately, without any distinction; and this amusement,

amusement, with musick, continues all night. In the morning the *Demauno* and suppliant pray at the middle supporter of the latter's house, with the usual forms, when a cut goat is brought as an offering, and sacrificed by a relation: hence they repair to his field, taking with them the *Chumdab*, and again pray near the stump of a tree, where a small space is brushed and washed for the purpose, and a branch of the *muckmun* planted, in addition to the egg and rice deposited there by the *Demauno* and suppliant: a shrine for KULL GOSAIH is washed, rubbed with oil, red paint put on it, and bound with a red silk thread, and placed close to the *muckmun*-branch, when a goat and two hogs are sacrificed by a relation, that the blood may fall or be sprinkled on the shrine *Chumdab* and branch. For this office he gets a rupee and a turban: the offerings being dressed, are eaten with grain: the party having feasted, return, bringing with them the *Chumdabs*, which are carried five times round the suppliant's house, and then placed against eaves, where they remain five days; at the expiration of which, a *seer* of *takallone* is served out to every person who applies for it, at the suppliant's house; but four men are stationed at each of the four doors, that every person who goes out with the *takallone*, may receive a blow with the open hand from each of the four men stationed at the door he passes out of. At the conclusion of this ceremony the *Chumdab*-bamboos are taken into the house, and suspended to the roof; the suppliant repairs to the field, and makes an offering of a hog, and prays at the shrine of KULL GOSAIH, whence he returns and sacrifices a goat at the middle supporter of his house, with prayer: these offerings are dressed, and, as is customary, they feast on them.

When the *kofarane* (a small grain like what the lowlanders call *collye*), is reaping in *November*, or the beginning of *December*, a festival is held as a thanksgiving before the new grain is eaten of. Materials for a feast being prepared, a day is fixed by the *Maungy*, who invites the chiefs of the neighbouring villages. On the day appointed, the two men who prayed at the *Cbitaria*-festival, proceed to *Chalnad* to pray, and sacrifice a goat, which, with some *kofarane*, is an offering at the *Nad* to CHITARIAH GOSAIH. On their return to the village, the *Maungy* has his *kondone* brought out, on which he prays and immolates a fowl. During this, the *dunga-reabar*, or vassals, repair to their fields, offer thanksgiving, make an oblation to KULL GOSAIH, and return to their houses to eat of the new *kofarane*. As soon as the inhabitants assemble at the *Maungy*'s house, the men sitting on one side, and the women on the other, the *Phojedar* presents a hog, a measure of *kofarane*, and a pot of spirits, to the *Maungy*, in the name of his vassals, by whom these had been contributed.

contributed. On receiving them, he blesses his vassals, and exhorts them to industry and good behaviour; after which, making a libation in the names of all their gods, and of their dead, he drinks, and also throws a little of the *kosarane* away, repeating the same pious exclamations; which ceremony is the commencement of the festivity and drinking that lasts for several days.

On reaping the *takallone* (*Indian corn*) in *August* or *September*, there is also a festival. Each man repairs to his field, with either a hog, goat, or fowl, to sacrifice to KULL GOSAIH, to whom he prays; and, having feasted, returns home, where another repast is prepared; and on this day it is customary for every family in the village to distribute a little of what they have prepared for their feast to every house.

Should any person eat of new *kosarane* or *takallone* before the festival and publick thanksgiving at the reaping of these crops, the *Maungy* fines the offenders a cock; which is sacrificed by the two preachers at the shrine of *Chittâriah*.

The mountaineers are represented to have in general an amorous disposition; their solicitude and attentions, when in love, are said to be unceasing. If separated but for an hour, the lovers are miserable; they conceal their meat to present to each other privately. The lady dresses whatever nice things she can secret from her parents, to treat her lover with; and he presents her with rings and beads, and treats her with toddy. They go to market, and exchange paun and tobacco; and, on their return, should they perceive an acquaintance, they separate, to avoid being seen in company; but by assignation soon meet again. They retire to sleep together, but seldom are guilty of that indiscretion which is irreparable, though the fine for such imprudent conduct, which the parties are afraid to conceal, is a hog and a goat to the *Maungy*, who sacrifices them on the spot where frailty made them transgress, and sprinkle some of the blood on them, to wash out the stain from his land, or rather to appease an incensed deity, who fails not to punish such abominations. Thus when a virgin is deflowered with her consent, the blood of the offering is supposed to atone for their sin. Should the couple agree to come together as man and wife, the *Maungy* proclaims it; and they are immediately considered to be married, without any further ceremony or expence. The man has the option of taking her for his wife: she however has the privilege of demanding a regular marriage, which implies the usual presents, and the time for the wedding is fixed.

Polygamy is allowed. A man may marry as many wives as his circumstances will admit of; that is, as often as he can defray the expences of the nuptials. When he sees a girl whom he wishes to espouse, he sends a friend to her parents to ask
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her in marriage: they refer him to the lady. Should he obtain her consent, he acquaints the parents, who desire him to return to the suitor, to advise him of their acquiescence, and that he may prepare the usual presents of *poonate* (beads), and *tubacane* (a ring for the neck), to present to the lady; which being accepted, she is considered betrothed to him; and he, as soon as he can procure money for the expence of the nuptials, must provide a turban for the lady's father, with one rupee; also a rupee and a piece of cloth for her mother; and a rupee and a piece of cloth for several of the nearest relations. These and the materials for the marriage-feast being provided, a day is fixed, on which the bridegroom, with his relations, proceed to the bride's father's house, where they are seated on cots and mats, and after a repast, the bride's father taking his daughter's hand, and giving it to the bridegroom, he publicly admonishes him to use her well and kindly, and not to murder her; threatening to retaliate; but if she should die a natural death, or by means of the devil, it cannot be helped. On the conclusion of this exhortation, the bridegroom, with the little finger of his right-hand, marks the bride's forehead with red paint, and the same little finger being linked with the little finger of the bride's right-hand, he leads her out of the house to his own. At the expiration of five days, the bridegroom, with the bride, returns to her father's well stocked with provisions for feasting, and having passed two or three days with their parents, they go home, and the ceremony concludes.

A man dying and leaving widows, his younger brothers, or younger cousins of the first and second degrees, or nephews, may receive the widows as wives. If the parties agree on these occasions, the children go with their mother: if the widow prefers returning to her relations, the children under ten years of age go with her, and she is entitled to a rupee and a piece of cloth annually, for bringing them up. When arrived at that period of life, they are sent to the relation of their father who paid their mother for taking care of them. When a woman has ten children, her eldest brother may claim one; the right is acknowledged from custom, though it cannot be enforced. The child thus adopted by an uncle, is treated as, and has every privilege of, his own children. Should this son by adoption arrive at manhood, die, and leave property, it is equally divided between the adopter and the father of the deceased.

A man desirous of marrying a widow, deposes a friend to ask her in marriage. Should she consent, she refers him to her late husband's relations, the nearest of whom, for his acquiescence, is entitled to two rupees and a turban. The parents
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of the widow are next consulted. Should they approve, they are entitled to some trifling presents, on which the father gives his daughter's hand, exhorting the bridegroom, as related in the description of a marriage. The red paint is not used on a second marriage: a feast concludes the whole.

A man cannot marry a relation, though he may marry his wife's sister, except in the instance of younger brothers, cousins, and nephews, receiving one each, or more, of their senior kinsman's widows, who are treated and considered as wives, though there is no expence or ceremony attending their union.

Should a girl be compelled by her parents to marry a man whom she dislikes, and should she be unhappy, and leave her husband, and in despair put an end to herself, the parents get a court appointed, to inquire how their son-in-law behaved to their daughter: if it should appear, that he treated her cruelly, he is considered guilty of murder, and fined, but not so heavily, as is common for the commutation of blood; if on the contrary it should appear, that he behaved well to her, it is deemed suicide.

Should a married woman elope with a man, and the party be pursued, seized and brought back, judges are appointed to try the man, who is generally fined one or two score of rupees: the husband may or may not receive his wife, and the seducer has to pay the fine.

A man, convicted of having committed adultery, is fined twenty or thirty rupees; he is also obliged to furnish a hog, the blood of which, being sprinkled on the adulterer and adulteress, washes away their sin, and, it is believed, will avert divine vengeance: the ceremony ends with a feast, and, the parties thus purified, the husband and friends are reconciled. The adulteress in general reveals the secret; as a superstitious idea is entertained, that, if concealed, the inhabitants of the village will be visited by a plague, or that a tiger or venomous animal will destroy them. When any of these happens, it is religiously believed to proceed from the immorality and evil doings of some individual, and as a punishment for some concealed sin; to discover which they have practices, in which they place implicit faith: one is called *Satane*, and is as follows: A place large enough for a man to sit in, is brushed and washed, in the middle of which a small branch of the *bale*-tree is planted, and a person sits opposite to it, another supplies him with a few grains of rice, on a *bale* leaf, some of which he throws on the branch, the remainder he is to eat, the person who gave it him repeating, that he is to swallow it in the names of all the inhabitants of the village; in which should the sinner be, it is believed

God

GOD will make him throw up the rice: should this happen, he is next to eat some in the names of families, and again in the name of all the individuals who compose that on which the *Satane* proof falls. Another is called *Cherreen*, and is thus: A stone is suspended to a string, which, it is believed, will be tossed to and fro, on the name of the village, family, and offender. The third is called *Gobereen*, and is of a more serious nature than the two former. A pot with some cow-dung, oil, and water, is put on the fire; when boiling, a ring is thrown in; each person approaches to take out the ring, calling on GOD to protect him if innocent, and to burn him if guilty: on this trial, it is believed, the innocent will escape unhurt in taking out the ring, and that the guilty person will be severely burned, without being able to put his hand into the pot, as the mixture, it is said, will boil up to meet his hand.

When a married man has been detected in committing fornication, his wife or wives may insist on a hog or goat being sacrificed, to sprinkle the blood over him: being thus purified, it is believed this ceremony expiates divine vengeance, which would sooner or later alight on him or some of his family, for this sin.

Witchcraft and sorcery are most firmly believed, and accidents or diseases, which elude their little skill in medicine, are attributed to some person supposed to be skilled in these arts, who has bewitched them; when such a conviction is admitted, the *Cherreen* is consulted, and again the *Satane*, both repeatedly, till some person be named: to confirm this ideal proof, which is received as infallible, an ordeal is undertaken, and, on the part of such person (supposed to be bewitched) five men are employed, who are qualified, and acquainted with this mode of trial; such as are born immaturely cannot be engaged in it: these five proceed to a retired place on the banks of a river, before day-light, taking with them wood of a particular kind, and make a fire to heat an iron: one of these is to touch the iron when red hot with his tongue, but is first to bathe: while he is performing his ablution, the others heat the iron: when red hot, a little rice is thrown on it, in the name of the person accused of witchcraft, and BIRMAH, the God of Fire, exhorted to do justice: if it consumes, he is considered guilty; if not, not: the *Tátoo*, or person who touches the iron, keeping one foot in the water, puts the iron to his tongue, and must repeat it as often as nine times, if the first and second touch does not burn, which however cannot happen: on the *Tátoo* being burned, the party return before sun-rise, and, on their approach to their village, the friends of the sick person are called out to see the *Tátoo's* tongue; the person accused may object to the trial, and insist on its being

being held over again, that two persons may go on his part to witness it; on this proof, the unfortunate person is seized and punished, till he or she acknowledges the crime: it must be also told who instructed him, or her, in the practice of this evil art; the *Chouraga*, or warlock, is now brought to the sick person, to exorcise him from his spell: should he recover, the *Chouraga* is compelled to pay one rupee to him, one to the *Maungy* of the village, one to the four persons who witnessed the ordeal, and eight annas to *Tátoo*: on the other hand, should he die, the *Chouraga* must either suffer death, or redeem his life (at the option of the friends of the deceased) at the price established for the commutation of blood: again the friends of the *Chouraga* may retaliate on the person, whom their relation accused of having instructed him in forcery.

It is not uncommon for two neighbours to agree, when their respective wives are pregnant, that the offspring, in the event of their being a boy and a girl, shall be married to each other: on these occasions, the ceremony may be performed when the parties are about eight or ten years old. Should the father of the girl violate the engagement, and give his daughter to another person, the father of the boy will obtain a fine equal to the expence of a marriage, which is rated according to their circumstances; whereas, should the father of the boy, notwithstanding his contract, marry his son before he has performed his part, the father of the girl is entitled to a fine of a turban and one rupee; after which it may still be performed, or not, as the parties mutually agree.

When a woman is in labour, four or five of her relations and neighbours assemble to attend her; amongst these, the most experienced does the duty of a midwife; the woman keeps her house for five days, and her husband attends her, during which he must not enter any person's house, or field, nor until he and his wife have washed their clothes and bathed: on this day the child is named by the father; but, if he be not present, the mother gives a name; however this name may be changed before the child is weaned; after this they go out as usual; the women who attended her in child-bed are entitled to a feast, are anointed with oil, and their foreheads painted red, a piece of cloth is given to the one who performed the office of a midwife, and a little grain or some other trifling acknowledgment, to the others for their friendly assistance.

When a child dies that is not weaned, the father sends a friend to his *Maungy*, to solicit ground to bury the body, which, being complied with, the corpse is carried to the grave, in a place allotted for public burial, and interred with its head to

the north : for infants of this description, no further ceremony is observed ; but, when a child dies that has been weaned, at the expiration of five days, the relations and neighbours are invited to a feast called *Boge*, which being prepared, the father, or nearest male relation, takes a little of every thing that may be dressed, and proceeds to the road leading to the burying-ground, where he throws them away in the name of GOD and the deceased, the intention of which is to avert the like misfortune in future, and returning to his house, the company are feasted, all observing the same custom of throwing away a little in the name of GOD and the deceased, previous to eating. Another entertainment, similar to this, is given at the expiration of a year, and, annually, at the thanksgiving for reaping the *takaloo* and *kosarane* : some of each of these grains are thrown away in the name of GOD and of the deceased.

When a child is still-born, the body is put into an earthen pot by the women who attend, and covered with leaves ; the father carries the pot into the jungles, places it near the stem of a tree, and covers it with some brush wood, where he leaves it, and there is no further ceremony.

The corpse of a person dying of the small-pox, or measles, is taken with the bedstead into a jungle about a mile from the village, and placed under the shade of a tree, where the body, the bedstead, and clothes, are covered with leaves and branches, and left : those who attend the funeral, bathe before they return to their homes : at the expiration of a year, the relations, being prepared for a festival, proceed out of the village, on the road leading to where the body was placed, with all whom they invite ; where one of the kinsmen having prayed, and thrown away a small portion of the feast, and made a libation in the name of the deceased, the party assembled partake of it, and return. The bodies of most others, dying a natural death, are buried, and the cause assigned for disposing of the bodies of those who die of the small-pox as described above, is a superstitious idea, that such an act will avert any further fatality ; whereas, if buried, it will continue to rage, and carry off every inhabitant of the village, which is reported to have happened formerly.

When a young man, or virgin, who is marriageable, dies, the father, or nearest relation, sends a friend to solicit four cubits of ground, to bury the deceased, from the *Maungy*, who asks if the relations propose putting the bedstead into the grave with the body, in which case a rupee is paid to him for the purchase of a hog. No time is lost in carrying the body to the burying-ground, where a grave of a foot and a half or two feet deep, being dug north and south, the head is placed towards the former point ; the body is covered with pieces of green wood laid across it ; after
this

this some long grafs, and then the earth which had been taken out, is thrown over the grafs; to conclude, small ftones are laid to encompass the grave, and a few over the middle of the body. No women or girls are allowed to go to funerals, nor are prayers faid: on the return of the party, it is customary for the whole to wash their legs and arms previous to entering their houses.

The hog which the *Maungy* had purchafed with the rupee, that was paid for permission to deposit the bedstead with the corpf, is facrificed by him; the liver being taken out and roasted, the *Maungy* takes a fmall bit, and cafting it away with fome of the blood, in the name of GOD and of the deceafed, the remainder is divided among fuch men as may be prefent, who repeat what the *Maungy* had faid, throwing a little away before they eat; after this repaft, the carcafe is divided; the *Maungy* feparating a fore-quarter for his family, fhares on the remainder in proportion with every inhabitant of the village. At the expiration of five days, the *Boge* is obferved, and every family in the village, or as many as the relations can entertain, are invited; when the father has performed the ceremony of carrying a little of every thing that is drefsed, with fome fpirits, provided folely for the purpofe of a libation, to the road leading to the burying-ground, and there caft them away in the name of GOD and of the deceafed; the company afsembled, are all ferved, whether male or female, old or young, on feparate leaves, and each, previous to eating, obferves the ceremony of throwing fome away, as already related. Another *Boge* is held at the expiration of a year, differing only from the former in the free ufe of liquors: at the annual thankfgiving for the reaping of the *takál* and *kofar*, fome of each is thrown away in the names of deceafed kinfmen, for one or more years, according to the degree of propinquity and eftimation in which each was held; it however ceafes at any time, that the furvivors remove from the village in which their kinfman died.

When a chief of opulence and high rank is dangerously ill, he orders his relations, male or female, and vaffals, to be afsembled; as foon as they attend him, he informs them of his fituation, and, as they will obferve he has not long to live, he defires them not to grieve, but to be comforted, and points out the fon whom he wills to be his fucceffor: here primogeniture has no preference: if he be a fon he muft fucceed*, a daughter cannot; though an idiot, it is to be underftood his right, and

* In fome of the *tuppabs*, a fon may be fet afide, and the fucceffion may be bequeathed to a brother, as is now the cafe in *Munneecarry*; the prefent chief, brother to the late *Maungy*, who left a fon a minor, fucceeded by defire of the deceafed, and received his brother's widows as wives.

some near kinsman is named by the dying man to be his son's guardian: to him he bequeaths his territories and fortune (though certain sums or parts are to be distributed) and desires them to look to him for protection. On his death a drum is beat to announce it to such as are at a distance, that they may attend to see the body, which is not removed, before the vassals collect together to be witnesses of the fact; it is then carried without the village, close to which it is interred on the bedstead, in the same manner as related of a young man's or virgin's funeral. A piece of silk is spread over the grave, and stones placed so as to prevent the wind blowing it off: a hut is erected to shelter it, and, round the whole, a fence of bamboos or stones: the mourners, on their return, observe the usual oblation, and are feasted, but throw away some of whatever they have to eat or drink, in the name of GOD and of the deceased, previous to tasting it; all who come are thus treated in succession for five days, when the first *Boge* is kept, when the only difference between it and that of a *Dungarria*, or vassal, is the greater expence from a concourse of relations, and adherents assembling, and that spirits are provided for them: at the festivals for reaping the *takâl* and *kofar*, some of each is thrown away on the road leading to the grave as already described. At the expiration of a year, the chief's relations and vassals being invited for their second *Boge*, the *Demauno* and the heir pray at his door for the deceased, when all assembled partake of the feast, with the usual ceremony: at the conclusion of this the fortune and goods of the deceased are divided; the heir taking one half, the other is equally divided among the sons, brothers, and nephews by the brother's side. Nephews by sisters do not share; the widows may, if the parties agree, go with any of their late husband's younger brothers, or nephews by the brother's side, as wives. If however the parties do not agree to come together, the mother of the heir has the option of remaining with her son, or of returning to her relations; the other widows must do the latter.

When a married woman dies, the widower observes the usual *Boge* at the two stated periods: he is not allowed to marry before the performance of the second, or at the expiration of a year; and it is customary to present the nearest kinsman of his deceased wife with one rupee and a turban, after which he may espouse as many wives as he pleases, or has fortune to maintain.

The body of a person who dies of a dropfy (*Narat*), is carried and thrown into a river; if buried, it is apprehended the same disorder would return, infect and carry off the other inhabitants. The funeral party having cast the body into the water, proceed to another part of the river to bathe, and there, having brought a fowl

fowl and some *takál*, or rice, some of each is thrown into the water, in the name of GOD and of the deceased, by all who are present, before they eat. This is the only *Boge* which is observed for persons dying of a dropsy, though, at the thanksgiving, for reaping the *Takalloo* or *Kofar*, some of each is thrown away in their names.

When a person has been killed by a tiger, the body, or any part of it that is found, is covered with the branches of trees. On the fifth day the relations of the deceased, with a large party, proceed to the place where the remains of their kinsman lay, taking with them a new earthen vessel, a goat, and ten or fifteen seers of *Takál*, or rice. Being arrived at the spot, one of the nearest relations prays for the deceased, in which he is accompanied by the *Demauno*; at the end of their prayers, the former scatters some grains of rice, and cuts off the head of the goat, naming GOD and the deceased: the moment he severs the head, he rushes into the midst of the party, who surround him; the *Demauno* at the same time seizes the head of the goat, sucks the reeking blood, and is supposed to become frantic: he casts the head from him and springs after it, endeavouring to imitate the tiger, and making a hideous noise as like that beast as he can; he looks about for the preacher, whom it is the business of the party to conceal, and prevent his touching; should he in his exertions accomplish this, a superstitious opinion is entertained that the poor preacher will infallibly fall a sacrifice to a tiger: when the *Demauno* is well wearied by his pranks, the head of the goat is put under ground in the earthen vessel; this speedily restores his reason, and the preacher comes out in safety: the party thence retire to a small distance, have a feast and return to their homes: at the expiration of a year, the second *Boge* is held for the deceased, in the same manner as for any other relation, and the same attention is paid to his memory, on reaping the *Takalloo* and *Kofar*.

When any person dies of the *Moogdo*, or *Kory*, a disease in which the extremities decay and drop off, the body is buried with the usual ceremony, and the *Boge* is twice observed as usual, at which every sort of flesh, except goats', may be eaten; fish is also forbidden: in that disease, goats' flesh and fish are not allowed to the patient, which is the cause of their being forbidden at the *Boge*.

Such as die of an epilepsy, are buried with the usual ceremonies; at their *Boge*, hogs' flesh is forbidden, because those who are subject to the epilepsy, are not allowed to eat it.

Persons

Persons who are killed, and suicides, are buried with the usual ceremony above recited.

When a *Demauno* dies, his body is carried into the jungles and placed under the shade of a tree, where it is covered with leaves and branches, and left on the bedstead on which he died; the objection to interring his remains is a superstitious idea, that he becomes a devil, and that, if buried, he would return and destroy the inhabitants of the village; whereas, by placing the body under a tree, he is thus compelled to play the devil in some other: the usual *Boge* ceremonies are observed, but cows' flesh forbidden to be eaten at them: should a *Demauno* eat of it, God in his wrath would cause all his functions to fail in their effect.

It sometimes happens, that very old men, when they are very dangerously ill, desire their descendants and relations to be assembled, to whom they give directions about the disposal of their body, that is, if they wish not to be buried, some direct their remains to be placed under the shade of a tree, while others order them to be thrown into a river; their will in this respect is strictly attended to, and the two *Boge* ceremonies are observed.

Before the chiefs of the hills put themselves under the protection of the *English* government, wrongs and injuries committed by the inhabitants of one village on that of another, were in general decided by the sword; but disputes and differences, whether with regard to property or otherwise, between inhabitants of the same town, were always settled by the *Maungy* and his officers; the first of them in rank is the *Cutwal*, who is the chief's deputy, next the *Phojedar*, and lastly the *Jemmadars*, who have a certain number of men under their authority, to inspect the conduct of the inhabitants, and report it to the *Phojedar*; to these, old and experienced men were added, and usually called in to assist, when the subject of litigation was of importance; at present, none but trifling disputes are settled by those officers: for murder, and all capital crimes, the delinquents are brought to *Bhagalpore* or *Rajamahall*, to be tried by an assembly of the chiefs, agreeably to the engagements entered into by Mr. CLEVELAND with the head *Maungies*. Though the *Maungies* of all the villages also assemble on these occasions, none but the *Sirdar Maungies*, or chiefs of *Tuppabs*, and their *Naibs*, or deputies, sit in judgment: on passing sentence, it is customary for them to ask the inferior *Maungies*, if the decree be not just; should these question it, another examination takes place, when the decision may be the same or amended.

I have been present at several of these trials: the forms observed, were first to swear

swear in the judges according to their faith ; this being peculiar, their various ways of taking an oath, may not be thought unworthy of description. The hill word *Deebeen* is an oath ; there is no particular officer for administering oaths ; any person may do it : the form in general use at these trials, is, for a mountaineer to put a little salt on the blade of a *Tulwar* or scimitar, when he says, " If you decide contrary to your judgment and falsely, may this salt be your death : " the person swearing having repeated this imprecation and applied it to himself, the part of the blade where the salt is, is held above his mouth, which he opens, and it is washed off into his mouth with some water, that he may swallow it. Those who, from indisposition or infirmity, do not like to swallow the salt, repeat the oath, putting their hand on two arrows fixed transversely in the ground, at about a cubit's distance, with some salt between them. On some occasions a man swearing repeats the oath, with his hand on a sword, while others repeat it, laying hold of any person's hand ; and all these forms are considered equally binding. Next, the commitment and charge are read and explained by the collector's officer, in his, the collector's, presence ; then the delinquent must state his defence or confess his crime, sitting on his hams ; after which the *Maungy* and *Phojedar* of the village, where it was committed, declare what they know of it : here the criminal is apparently his own accuser, by never deviating from truth ; the vice of lying being considered an aggravation of any crime ; but I have known the accused refuse to speak ; (for lying has not obtained much among these highlanders). A man convicted of falsehood, or who violates a promise, is called *passiary*, the meaning of which is, a person to whom no credit is due, though he should even speak truth, and whose professions or promises are not to be depended on : such a person is not admitted on any arbitration, or on any committee to settle trivial differences.

Formerly when a man of one village had a claim upon an inhabitant of another, it was not uncommon, if the latter denied it, and refused to have the matter brought to trial, for the complainant to apply to the chief of his village, to unite with the heads of one or two others, to whom presents were made in proportion to the nature of the dispute, to form a junction with all their vassals, to plunder the village where justice was denied, and to carry off the offender : the division of the booty was according to the rates allowed the *Maungies*, their officers, and vassals ; in such troublesome times much was not taken, as all property, not of immediate use for domestic purposes, was usually concealed ; the chiefs could therefore only have the first choice of the utensils and apparel, which fell into their hands. The relations

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and chief of the village, from which the captive was taken, after some time were wont to send a present to the complainant, acknowledging the demand, and promising to abide by the award, which arbitrators should give, on his being released: these conditions were complied with, the prisoner was enlarged, and he and his relations had to make good the loss sustained by the inhabitants of the plundered village, as well as to pay the cost of the arbitration.

It sometimes happened on such occasions as the above, that the inhabitants of the village, intended to be plundered, got intelligence of the design, and the cause of it; on which it was usual for the *Maungy* to call on his vassal, to answer to the accusation: if he acknowledged it, an ambassador was dispatched to the complainant desiring him to desist from his intention, and to name arbitrators that justice might be done; on the other hand, if the charge was denied and the accused exhorted his chief to stand on the defensive, with an assurance that he would either prove his innocence, after the invasion, or make good the loss sustained on both sides, the vassals were assembled and stationed to guard every avenue leading to the village: night attacks were most common; but these precautions were in general sufficient to induce the assailants to defer a scheme, which was merely to plunder, and, as long as the defendants were alert, nothing was attempted; the invaders therefore kept in their neighbourhood, and, when they were harassed by watching, the party advanced, and a man was sent forward to scatter a soporific dust to windward of the village, which, it was believed, would put every inhabitant in it to sleep in less than an hour after dark: in this persuasion they rushed on to plunder, and, carrying off all that was valuable, retreated; soon after which a deputation was sent from the despoiled village, desiring an arbitration to be appointed, to try whether the accusation was just, which was alleged against the inhabitant of it; if proved, he was bound to make good the loss sustained, as well as to commute the lives that might have been lost on both sides; on the other hand, if acquitted, all this fell on the accusers.

When a man by accident killed one of his brother sportsmen in hunting, it was customary for the party to carry the body to the village, where the relations of the deceased, having declared the party had no right to slay their kinsman, set out and implored the assistance of a neighbouring *Maungy* with his adherents to obtain justice: having succeeded, they returned in force to plunder the homicide's houses, and took eatables from every house in the village: at the conclusion of this violence, the *ferdars* of the village assembled to sit in judgment on the part of the hunters, whilst

whilst those of the assailants met them on the part of the kinsmen of the deceased : the sentences on such occasions were seldom less than ten or twelve scores of rupees, as a commutation for the blood of the manslayer, two-thirds of which ransom he had to pay, and the remainder was recovered from the party of hunters : when the above fine was realized, another complaint was made by the relations of the deceased to the *Maungy* of the village, to which he belonged, claiming some consideration for the children which he might have begotten had he lived ; judges being appointed to examine the second demand, the fine was about two or three scores of rupees, from the homicide.

When a woman had poisoned her husband, and confessed the fact, judges were appointed to settle a just retribution ; ten or twelve scores of rupees were commonly adjudged, and the sum was recovered from the woman and her relations, to whom she was returned.

A person convicted of stealing cloth, was not fined more than five or six rupees, and a turban ; yet the thief, by praying for an abatement of this, was in general let off, on paying one rupee, and producing one hog and a turban.

When an orphan, who had no relations or property, was convicted of stealing money, grain or cloth, he was compelled to restore the stolen goods, and flogged and discharged : judges were not appointed for such a trial, as the accused was supposed neither to have property, nor friends, to pay the fine for him.

When grain had been stolen, and the thief unknown, the *Cherreen* was first resorted to : whether this was successful or not, the *Satane* was next tried to confirm the discovery, which might have been made by the *Cherreen*, or to find the thief by it if the *Cherreen* had been unsuccessful. In the event of both failing, or on their being firmly denied by the accused, he was compelled to attempt the *Gobereen*, which was deemed unerring : on such slender proof the accused was seized and punished ; till he acknowledged the theft, and declared whether any person advised him, or was an accomplice : he was then set at liberty, and judges were appointed by the *Maungy* of the village to inquire what damage had been sustained, which the accused was obliged to make good, and to fine him according to the nature and extent of his crime : on these occasions the fines were heavy, to deter others from committing similar offences.

When a chief had killed a poor man, the officers of his own village, and those of a neighbouring village, were assembled, with some sage old men for the trial : should the fact be established, the relations of the deceased might refuse a commuta-

tion for the blood of the murderer, in which case he was delivered up to them to be put to death, and his kinsmen had to pay the expences of the trial. The ransom was in general ten or twelve scores of rupees, but the relations of the deceased had the option of remitting the fine, and of pardoning the murderer.

All applications to a chief, to apprehend any person in a civil cause, and to appoint judges for a trial, are accompanied with a fee; and any person, borrowing money for that purpose, is compelled to pay two rupees for every one so borrowed, at the issue of the suit, whether he gains it or not.

A chief has no more right to strike a poor man than the latter has to strike him: the crime and punishment in either case is equal. Should a chief without provocation strike a poor man and draw blood, the latter complains to the *Cutwal*, who with the *Phojedar*, and some old men, being assembled, and having heard the complainant, they depute an agent to their chief, to require him to answer the charge, which being acknowledged, the agent returns, and informs the court that the offender confesses his crime: the complainant then demands a certain sum for reparation, and the agent sets out to the offender, who, on begging a remission of the fine, in general gets off by furnishing a hog, which being killed, the blood is sprinkled on the wounded person; a similar misfortune is thus supposed to be averted, and, the parties reconciled, the aggressor paying the expences of the trial.

Should a man borrow some *Kofarane* for seed from another, and refuse to repay for eight or ten years, and till he is compelled, the lender, on establishing the loan before judges, will receive three rupees for each seer, that is due to him.

The same penalty is levied from those who refuse to repay a loan of *Takalloo*.

Whoever accuses a man of committing incest with his mother, on proof of such abuse before a jury, will be fined a rupee for the complainant, and a hog for a feast to his judges.

Should a man, who is sober and walking about, touch another who is asleep, or sitting, with his foot, the aggressor will be fined a rupee for the complainant, and a hog for a feast.

A person committing the same offence while drunk, is let off on giving a fowl to the complainant.

Should a man who is intoxicated, by day-light, and willingly vomit on another, on conviction before judges, he will be fined a turban and one rupee: should he however, from its being dark or otherwise, not see the person, he is forgiven.

Should a man seize and cultivate a field, which his neighbour had begun to clear,
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this offence not being cognizable before judges, the latter imprecates divine wrath, that nothing may grow on it: it is believed that his prayers will be attended to, and that the produce will be small comparatively with former years.

If two men quarrel in their cups, and blood be shed, when sober, judges are appointed, and the person who cut his antagonist, is fined a hog or a fowl, the blood of which is sprinkled over the wounded person, to purify him, and to prevent his being possessed by a devil: the flesh of whatever has been sacrificed is eaten, and a feast reconciles the combatants; but, if the men quarrel while sober, and one be wounded, judges are appointed, and, exclusive of a hog or a fowl for the purpose above described, the person who drew blood from his antagonist is fined one rupee, and a hog for the *Maungy* of the village, and, at the discretion of the judges, is compelled to pay a fine to his wounded antagonist.

Should a man by design or accident (in carrying fire) set fire to a jungle, whatever loss is sustained by the flames spreading, and burning grain, or men's property, he must make it good. If a town should be set on fire by accident, and the whole be burned, the person, who accidentally caused the loss, is not fined, because the loss sustained would be too great for one person or family to defray; but, if only one or two houses should be burned, the offender and family are obliged to make entire restitution.

If a man be detected by a woman sitting on her cot, and she complains of the impropriety, and demands a fowl as a forfeit, he complies, but she returns it; on the other hand, if a man detects a woman sitting on his cot, and he complains and demands a fowl, she must produce it, and he kill the fowl, sprinkling the blood on the cot to purify it: the woman is then pardoned.

Women at certain times are considered impure, should one in such a condition touch a man by accident, even with her garment, he is defiled; and for this offence she is fined a fowl, which is sacrificed, and the blood sprinkled on the man to purify him. Women at such times may talk to men, but not touch them: a man, whose wife has that impurity, must not himself during that period sit on a chief's cot; for so doing the fine is a fowl, and the blood is sprinkled on the cot to purify it. He must not even eat or partake of any thing at a festival, during such period of separation, and any person detected in this offence must pay the expence of purification from this pollution, by another festival to be held for that purpose at his expence.

When a party are assembled to go a-hunting, and have arrived at their ground,
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the *Cherreen* is held to ascertain which of the party will be most acceptable to the God of Hunting, to return thanks for the success they may have: two hens' eggs are given to the person named: this ceremony over, some are stationed at the skirts of the wood, while others scour it to drive the game to them; on their killing either a hog or a deer, the preacher breaks one of the eggs on the tooth of the animal, and throws the contents on its head, at the same time returning thanks to AUTGHA, the God of Hunting; this is observed on the death on all large game: on their return home with their game, the heads, the tails, and flesh on the inside of the loins, being separated, are considered sacred, and women are not allowed to taste of those parts, but the hunters feast on them, and the rest (one hind quarter being first given to the fortunate sportsman for his share), is equally divided among the party for their families: when the hunters have finished their repast, the one who killed the game, sacrifices a fowl to AUTGHA, the blood of which is shed on the fore teeth of the game, with thanksgivings to the God; and the preacher, having cut up the heart, that the blood of it may fall on his bow and arrow, breaks an egg on it, praying again to AUTGHA.

Should a woman privately eat of those parts, of which they are forbidden to taste, the mountaineers believe that AUTGHA will be offended, and prevent their having any success in hunting on any future excursion, and, if they do not happen to kill some game, the failure is attributed to the above cause, and the *Cherreen*, or suspending a stone to a string, is resorted to, to discover the offender, who, on such doubtful proof, is fined a fowl, which, being sacrificed to AUTGHA, the God is thus supposed to be appeased, and will be propitious to them on the next hunting party.

If a hunter goes out alone, and wounds some game, and returns for assistance to find and bring it home; those who go with him are entitled to one half.

When it is found, that wild boars or other game have been in a cultivated field, the owner leaves a road for the beasts to return, and erects a stage to watch their coming at night: should he wound any, he repairs to his village to announce his success, and to beat up for volunteers to assist him in ascertaining which way the game went, that they may know where to find it in the morning: they are directed in this by the groaning of the animal, which cannot run far, the poison, which they use on their arrows, being of a most subtle nature; yet its being of so fatal and noxious a quality does not prevent their eating the game, after cutting out a large piece of the flesh round the arrow, which is thrown away: I heard an instance of a man's eating that part and dying soon after. A sportsman, who goes out alone, keeps half

half of whatever game he kills, the remainder (after the *Maungy* has taken several joints of the chine) is divided among the inhabitants of the village.

A skilful and fortunate sportsman, who gives up all his time to hunting, daily kills more or less: when ten or twelve score heads of game have fallen by his skill, it is customary for him to take all the teeth and horns to a convenient place for prayer, and to sacrifice a hog over them to *AUTGHA*, the God of Hunting, who sometimes favours the huntsman, by drawing some game within view of the festival, that he may fall forth to kill it, and whatever his success may be on this occasion, it is considered as an addition to his offering, and accordingly eaten on the same altar: it is to be observed, that every sacrifice to their God is eaten.

When a hunter wounds game which he cannot find, he returns home to collect his friends to go in search of it: in the interim, should any person or persons pick it up, carry it off and eat it; on detection, they will be fined by the judges five rupees, and as many hogs, though the complainants in general let such offenders off, on their delivering one rupee and one hog.

Dogs, that will hunt, are held in estimation by the mountaineers, and any person killing one is fined ten or twelve rupees.

The penalty for killing a cat is whimsical; a person guilty of it must collect all the children of the village, and distribute salt among them, that he may avert divine vengeance.

It is related that a man, sitting with another, observed his companion's clothes on fire, and that, for informing him of it, the latter demanded a fowl, to shed the blood of it on his burned clothes for his friend's officious kindness, observing also that the clothes were his, that he had no business to say any thing about them: this practice is now obsolete as far as regards the exaction of a fowl; but the circumstance is related to this day.

Hospitality is considered a virtue; and, when a relation, or a man of rank, comes to see his friend, he is kindly received, and treated as sumptuously as the ability of the host will admit of: strangers travelling are well received, a house and bedding is allotted to them, and the inhabitants contribute to furnish them with as much provisions as they can eat.

When a peasant waits on his chief, to represent any grievance, having made his *salam*, he is not of himself to enter on the subject of it, unless he is desired, as his chief may be thinking of business of importance, when it would be improper and disrespectful to interrupt him; but due attention is always paid to the complainant.

A Peasant

A Peasant does not sit in the presence of his chief, without being desired to do so, and respect requires that he should decline it two or three times before he obeys, taking care to sit at a good distance: when business leads them to their chief, it is customary to have him previously advised of it: a man who has business, if he has any penetration, will observe at a distance what humour his chief is in, before he approaches him: if he should seem pleased, they think it right to embrace the moment, keeping at a respectful distance and advancing but a step or two as desired; but, if he is in an ill-humour, the complainant generally defers his suit. It is considered disrespectful in an inferior, even to enter a chief's house without being invited. When a chief visits another chief, the guest is always desired to seat himself first.

In addition to the foregoing account, a few general remarks may neither be deemed superfluous nor unnecessary. The natives of these hills are mostly very low in stature, but stout and well proportioned. To find a man six feet high would, I believe, be a phenomenon: there are many less than four feet ten inches, and perhaps more under five feet three inches than above that standard. It may not however be far from the truth to consider that as the medium size of their men. A flat nose seems the most characteristic feature; but it is not so flat as the *Coffres* of *Africa*, nor are their lips so thick, though they are in general thicker than the inhabitants of the neighbouring plains. I shall not pretend to say whether they ought to be considered the aborigines or not: as they have no letter, figure, or hieroglyphicks, all accounts of their ancestors are oral. It will however be remembered, that they consider themselves descended from the eldest of the seven brothers who, according to their tradition, peopled this earth, and who was an outcast for receiving his portion of every thing eatable on an old dish; that the hills in the districts of *Bhagalpore* and *Rájamaball* were allotted for him and his descendants: these being rather unproductive, and their wealthy neighbours refusing to associate with them, they had no alternative but that of plundering. These causes are assigned for their remaining in barbarous ignorance. In numbers, the hill-language has only words for one and two, which are variously expressed, as applied to different subjects: they however use the *Hindi* words in counting from two to twenty; and, when reckoning any thing which exceeds that quantity, they begin again at one, numbering by scores. Of their manufacture and commerce little can be said. The small and common *Hindoostany* bedsteads are made by the highlanders, and brought down for sale, with the wood-work of ploughs rudely shaped. Wood for various purposes, as well as for fire, with charcoal, and planks shaped with a hatchet (probably

bably that they may be more portable), are also brought down for sale: to these, bamboos, cotton, honey, plantains, sweet potatoes, and occasionally small quantities of grain, may be added, and will, I believe, include all the articles which they barter for their few wants from the plains; such as salt, tobacco, rice, for the purpose of worship; cloth, iron heads for arrows, hatchets, crooks, and such iron implements as they may have occasion for. I may add, that they have no manufactures; except the bedsteads, there is nothing made in the hills: they are even indebted to their neighbours on the plains for earthen pots. Salt and tobacco are their principal wants; for, in describing such hill-villages as are nearest market-towns, or such as have *hauts* on the plains, it is common to say, such a hill-village is supplied with these articles by such a town on the plains. Thus their trade is confined to a very narrow compass. Cultivation is in as unimproved and rude a state as it well can be, and seldom more extensive than for the immediate consumption of the cultivator and his family. The women as well as men work in their fields. The bringing of wood and water for all domestic purposes, cooking, cleaning, arranging all house affairs, belong to the former; and they are also employed in carrying wood, bamboos, and other things to market on the plains, to exchange for salt and tobacco. Hence it appears, that the greatest share of labour falls to the women; and a man is rich in proportion to the number of his wives, who are so many labourers. There are two sorts of soil which the mountaineers cultivate, the one a black earth, which is esteemed the best; the inferior is called red, is stiff, and of the nature of clay. Where there is earth sufficient for the purpose of cultivation on the sides and tops of hills, the trees, with which these hills are well covered, are cut, leaving pretty large stumps; and such as cannot be conveniently moved, or are wanted, are burned where they fall, in the places so cleared. Holes are made from three to four inches deep with a piece of hard wood pointed, in the middle of *June*, or setting in of the rains: in each of these, two grains of *Takaloo*, two of *Kosarane*, two or three of *Ldbary*, and from five to seven of *Naito*, are thrown in, when they are filled with earth. These holes are not made nearer than a cubit and a half; if less space was left, the grain would be too thick, and not so productive. *Koppai*, *Gungarea*, *Mooto*, and *Koodama*, are scattered in the same field, with *Masse*, which is sometimes scattered, and at others, put into separate small holes. In this *Kuldee* is also planted, and slips of the *Marallee*; *Bareally*, or yams, are cultivated, and grow wild likewise; *Takaloo*, or Indian corn, is the same as what is variously named in the plains *Bootab*, *Janeara*, *Jewar*, *Muckai*; but is larger and better on the

the hills, and is reaped in *November*. *Kosarane* is like the *Callye* grain of the plains in taste, but is white, and rather larger: it is reaped at the latter end of *November* and beginning of *December*; *Lábary* is a large pea, reaped in *December*; *Naito* is a round seed, reaped in *December*; *Kappai* is cotton, and does not flower before the third year, when it is gathered in *March*, *April*, and *May*, and fells for as much as cotton produced in the plains; *Gungarea* is a grain smaller than the *Cheennee* of the plain, is reaped in *September* and *October*; *Mooto* is somewhat like the *Gungarea*, and reaped at the same time; *Koodama* is also very small grain, and reaped as the two former; *Mossee* is the same as the *Bhattmoss* of the plains, but a smaller grain, and is reaped in *September* and *October*; *Kuldee* is a large plantain, bears some fruit the second year, but more plentifully the third and fourth, after which it declines; *Marallee* is the same as the *Sakkerkund*, or sweet potatoe of the plains, but much larger, is taken out of the ground in *November*, *December*, and *January*. The foregoing includes all the cultivated productions of the hills: they are, as may be supposed, of a hardy nature, and are plentiful or scanty, in proportion to their having enough or too little rain, for they trust entirely to the monsoon for water, having neither reservoirs, nor any method of watering their fields; which in fact might not be possible, from their situation. This last season their crops in general failed, from want of rain: on these occasions, the mountaineers cut more wood and bamboos, and make greater quantities of charcoal, for which they find a ready mart in the lowlands, and exchange it for grain. From this resource, and the thriftiness of some among themselves, who are provident, they averted a famine during the great scarcity in 1769 and 1770; many of the inhabitants of the plains retired to the hills, where they got a subsistence; but, having associated and mixed with the highlanders, they of course lost their casts, and therefore many remained with them. The *Takaloo* is the most productive of any of their grain, and is their chief subsistence. There are no esculent herbs, nor garden-stuff, on the hills. *Pungdoallee*, the same as *Sootnee* in the lowlands, grows wild, and is larger than the *Sootnee*. In times of scarcity *Singlab* (in *Moors*, *Jingoor*) is found in the jungles, but it must be boiled in several waters, or well roasted, and is a dangerous unwholesome food: of much the same nature is *Kindallee*, which is sliced thin and boiled in four waters, otherwise it is poisonous. The *Mango-tree*, *Tamarind*, *Kutbul*, *Bale*, *Burrel*, *Bayer*, *Mowwab*, *Jamon*, *Pbulsab*, *Dwarf Cudjoor*, that yields a bad kind of date, and *Keand*, with others peculiar to the hills, grow wild. Their domestic animals are hogs, goats, and fowls; they have also some dogs and cats; the wild animals are in general

general the same that are met with in the plains, except a species of large deer, and another remarkably small; the former are called *Mauk*, and the latter *Illarroo*.

The internal government of the hills, or the connection between the *Maungy* and his *Dungarear* (adherents) is a simple engagement for mutual protection: the *Maungy* swears to do them justice in disputes among themselves, and not to suffer them to be oppressed by others, and they, on their part, swear fidelity to him, as long as he shall protect them and do them justice: a failure on either part dissolves the contract; in fine the *Maungy* is no more than *primus inter pares*. The *Dungarear* apply to him for land to cultivate, and he allots it: when the crops are ripe, the *Cutwal*, and *Phojedar*, on the part of the *Maungy*, repair with the proprietor of each field, to estimate what portion he can afford to give his *Maungy*; thus an easy and amicable contribution is levied by the consent of the cultivator, who has no fixed proportion to yield to his chief; if the crops be luxuriant, he willingly gives what he can spare; if scanty, very little is demanded: if obstinately refused (a case which seldom or never happens), the *Maungy* cannot forcibly take any part, but, as a punishment, he can prevent this refractory *Dungarea*, from cultivating in his territory again. The *Cutwal* and *Phojedar* receive a little grain for their trouble, or perhaps the *Maungy* remits their contribution; for these officers, as well as the *Maungy* himself, cultivate their fields: they have no salary; the stations perhaps give them some degree of consequence, and on all trials they either receive some compensation, or are feasted; the latter, however, from their disputes in general being trivial, is most common. The appointments of *Cutwals*, *Phojedars*, and *Jemmadars*, belong to the *Maungies*; and he can dismiss from office when any of them offend; the *Jemmadar* is merely an honorary officer. I cannot now learn, at what period the hill villages were formed into *Tuppabs*: it seems however to have been an association for mutual protection; for the *Sirdar Maungy*, or chief of a *Tuppah*, receives no contribution from any village, but his own, or one in which he resides: when appealed to, or applied to for justice, he is paid in proportion to the amount or magnitude of the cause. He could assemble the several *Maungies* with their adherents on any offensive or defensive operations, but could not compel those to act, who disapproved of the motives. In their wars when highlanders were made prisoners, they were either set at liberty, or were ransomed. In their descents into the plains they were not however so merciful; all who opposed them were put to death: those who made no defence, women and children, were stripped of such valuables as they might have, but neither punished nor made prisoners: on such occasions the

chastity of women was held inviolable ; for it was believed, if any of the assailants committed violence on the persons of females, that he would infallibly lose his reason and die : the bow and arrow is the only arm peculiar to these mountaineers, some few have swords, and still fewer have match-locks, but these probably were collected in their predatory incursions into the plains, either in war or hunting ; in general they use the bow and arrow in the former, but always in the latter, though I do not think they are expert archers, when it is considered they are all hunters, from the time they can carry these arms, and are so fond of that diversion, that they go out at all seasons, and undergo great fatigue for the gratification which it affords them : a poisoned arrow is always used in hunting, but never in war, though they generally had them, as it is said, to be prepared for any game that might start.

There are no slaves on the hills ; slavery can neither be said to have been tolerated, nor forbidden : parents never sell their children, and those who hire themselves as servants, stay no longer than they agree with or like their masters.

Enough may have been said of their modes of worship : they are not the first race of people, who, we are taught, believed that the chief means of pleasing the Gods, and of pacifying them when they were angry, consisted in certain ceremonies, sacrifices, and feasts, in the due observance of which they conceive their welfare depends ; for, in praying, the suppliant says little more than to recommend himself and family to the Supreme Being, and subordinate Deities, and to promise oblations at the shrine of the God he then worships, provided he is fortunate, and enabled so to do by his prosperity : their expiatory sacrifices are however confined to the brute creation ; there is no instance of their offering up any of the human species to appease the gods, who are supposed to be abundantly pleased by the votaries feasting as large congregations of men as they can afford to entertain ; for, in proportion to the expence in meat and spirituous drink, the piety of the votary is measured. The part which the *Demauno*, their oracle, “ dreamer of dreams,” bears in their ceremonies and forms of worship has already been described : Before a man vows to sacrifice at any shrine, he consults the *Cherreen* and *Satane* ; when these agree, he repairs to the *Demauno*, without informing him of the result of those two processes, but explains to him the cause of waiting on him ; the *Demauno* is allowed one, two, and even three nights to confer with the Deity in a vision, to prescribe what the suppliant ought to do ; and, as it is believed he has familiar intercourse with God in his dreams, his decrees are obeyed, though, when they differ from what was discovered by the *Cherreen* and *Satane*, these are held over again to reconcile them.

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The women neither offer sacrifices, nor approach the shrines of their Gods; even husbands are forbidden to partake of festivals during the separation of their wives: these prohibitory laws regarding women, are of an old date, and their origin, perhaps, not well known.

COLONEL BROWN, in his account of these hills, forwarded to government in 1779, observes that it was about fifteen years since the hill people had any government among themselves of a general nature, during which period they had become dangerous and troublesome to the low country, that their ravages had been the more violent, as they were stimulated by hatred against the *Zemindars*, for having cut off several of their chiefs by treachery. The Colonel might have added, that, during that interregnum or dissolution of government, it was a common practice for the *Zemindars* on the skirts of the hills to invite the chiefs in their vicinity with their adherents to descend, and plunder the neighbouring *Zemindaries*, for which, and for the passage through their lands, the mountaineers divided the booty with them; thus at one time, from repeated acts of treachery in the *Zemindars*, the mountaineers were provoked to take ample vengeance on them, and their unhappy riots; and at other times, from their engaging the chiefs to make predatory incursions, to which they were strongly incited, no less from a desire of plundering their more opulent neighbours, than from the difficulty of obtaining salt and tobacco from the *bauts*, all friendly intercourse was at a stand; the low country bordering on the hills was almost depopulated, and travellers could not pass with safety between *Bhaugulpore* and *Furruckabad*, nor could boats, without danger of being plundered, put to for the night on the south side of the *Ganges* between the before-named places. It was at this period of double treachery on the part of the *Zemindars*, and predatory hostilities on the part of the mountaineers, (from which it may not be a strained inference, that the machinations of the former were in a great measure the cause of that necessity which impelled the latter to such frequent and fatal descents, when these public and private incendiaries were making large strides in ruining these once fertile districts?) that Captain BROOKE was stationed with a corps of light infantry to avert their utter destruction. On this duty, it is well known that he acquitted himself with great credit, from his uncommon exertions and successes in pursuing the unfortunate mountaineers into their hills, where numbers must have unavoidably fallen; for it became unquestionably necessary to impress them with a dreadful awe of our prowess: and in this harassing and unpleasant warfare, I have been well informed by officers, who were with Captain BROOKE, that his gallant conduct could

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not be too much commended : he made them sensible of the inefficacy of opposing him in the field, and invited the chiefs to wait upon him and negotiate, when he gave a feast to those who came and made them presents of turbans ; but before any permanent establishment took place, he was succeeded in the command of the light infantry by Captain BROWNE, who made further progress in conciliating the minds of the discomfited mountaineers : he placed them on the road from *Furruckabad*, near *Colgong*, to protect the *Dawks*, on which duty they still continue. From this and other measures of his, Captain BROOKE and he, it will be allowed, laid the foundation for the most permanent and happy settlement concluded with the hill chiefs by the late Mr. AUGUSTUS CLEVELAND, that could possibly be attained : he was sensible from the rapine and decay of these districts, that the peaceable deportment of the mountaineers ought to be purchased ; and, while he was reconciling them to become subjects to the *British* government, he bestowed liberal presents in money and clothes, to the chiefs, and to all the men and women who came down to him. Of his generosity they speak with gratitude ; and for the blessings and benefit which they derive from the wise and judicious conditions which he granted, and which were confirmed by government, I hope they will ever have reason to be thankful : as long as that government lasts, the comforts and happiness which they derive from them, must ever ensure their obedience. To engage their confidence, Mr. CLEVELAND, in the early part of his intercourse with the mountaineers, entertained all who offered their services as archers, and appointed many of the relations of the chiefs, officers ; they were not (nor are they as rangers, though they very seldom now ask their discharges) bound to serve for any limited time ; the corps, of course, constantly fluctuated, and was frequently, I understand, above a thousand strong : he clothed them, and in less than two years after they were formed, from the confidence he had in their attachment and fidelity, obtained fire-arms for them, in the use of which, I may venture to observe, that they are expert, and have address ; and I can also without hesitation assert, that they are capable of as high a degree of discipline as any native corps in the service ; and I trust I shall have the happiness to prove this in due time. Exclusive of having thus employed so many of the mountaineers, Mr. CLEVELAND fixed the salary of ten rupees per month for each chief of a *Tuppah*, three rupees ditto for each of his *Naihs*, and two for the *Maungy* of each village, from which there shall be a man enrolled in the hill-rangers ; but from such as supply not a man, the inferior *Maungy* receives no monthly allowance. In consideration of these establishments, I understand, the chiefs are not only
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responsible for the peaceable deportment of their own adherents, but bound to deliver over all delinquents, and disturbers of the publick peace, within their own limits, to the collector, to be tried by an assembly of the chiefs, either at *Bhaugulpore* or *Râ-jamahall*, as already related. It has ever been customary on these occasions to feast the chiefs so assembled; when any report is to be made to the collector, it is the duty of a *Naib* to wait on him with it, should the chief be indisposed or otherwise prevented.

From these happy and admirable arrangements, digested by Mr. CLEVELAND, whose name ought to be dear both to the natives of the hills and lowlands, the ease, comfort, and happiness of the former is ensured (for which they are grateful, and speak of him with reverential sorrow), and peace and safety secured to the latter; and if they have any goodness, they ought not to be less thankful. These solid and essential benefits are attended comparatively with but a trivial expence, and must ultimately be an advantage to government. I have been led to say more on this subject than I intended; yet it may not be thought foreign to it, to add, that the *Aumlab* and *Zemindars* erected a monument to the memory of Mr. CLEVELAND, nearly in the form of a Pagoda, and that another was also erected at the expence of government, by the order of the Honourable the Governor General and Council; on which is the following inscription:

To the memory of AUGUSTUS CLEVELAND, Esq.

Late collector of the districts of *Bhaugulpore* and *Râjamahall*,

Who without bloodshed or the terrors of authority,

Employing only the means of conciliation, confidence, and benevolence,

Attempted and accomplished

The entire subjection of the lawless and savage inhabitants of the jungleterry of *Râjamahall*,

Who had long infested the neighbouring lands by their predatory incursions,

Inspired them with a taste for the arts of civilized life,

And attached them to the *British* Government by a conquest over their minds;

The most permanent, as the most rational, mode of dominion.

The Governor General and Council of *Bengal*,

In honour of his character, and for an example to others,

Have ordered this monument to be erected.

He departed this life on the 13th day of *January*, 1784, aged 29.

Before I conclude, I must do the mountaineers the justice to mention, that they have as great a regard for truth as any people on earth, and will sooner die than deliberately tell a falsehood. In this I must confine myself to those who have not associated

associated or mixed in conversation with their neighbours, the *Hindu* and *Musselman* of the plains; where it is well known, lie and interest are synonymous terms: and what change in this respect a more familiar intercourse will occasion, I shall not pretend to premise.

They are in general of a cheerful disposition, and humane: both men and women are remarkably bashful. When asked to sing (their notes are wild and drawling, having a slow cadence, from forte to piano) or dance, they ever answer, that they can do neither without drinking freely, for they are ashamed until they are intoxicated. Like all people in so rude and uncultivated a state, they are passionately fond of all spirituous liquors, and, I am inclined to believe, prefer that which from its strength will inebriate them the soonest. Hence it appears they are not ashamed of being drunk, and in fact their religion promotes it, for a festival would not be much esteemed, that was unattended with a hearty carouse.

I conceive, instances of remarkable longevity are very rare: I have heard of one man who was said to be more than five score; but, as I have never met with any of them that appeared so old, or that could tell his age, for they keep no account of it, I am inclined to doubt the fact. In a late excursion with Mr. GRANT into the hills, we saw an old woman, who was said to be of a great age: she was a relation to a chief, whose house we were at; and having taken a cheerful glass, with his wives and daughter, of liquors which Mr. GRANT had carried up to give them, she set them the example of singing and dancing to us; in which she was followed by the chief and two of his youngest wives, who were at that time far from sober. When we had dined, the meat that remained was given to them; of which, the family being assembled, they thankfully partook, and made indubitably a more luxurious meal than they ever had before. We took a route in which no *European* had been; and Mr. GRANT, to reconcile them to so novel a sight, as well as to conciliate their attachment, carried up a variety of presents of clothes, beads, and looking-glasses, which he distributed with money to every family in all the villages we passed, and thus left them the most acceptable memorials of their visitors.

Bhaugulpore, June 27, 1792.

ADDITIONAL REMARKS ON THE SPIKENARD OF THE ANCIENTS.

—See the *Works of Sir William Jones, Vol. II. p. 23.*

ON THE DHANESA, OR INDIAN BUCEROS.

By Lieut. CHARLES WHITE.

Communicated by Lieut. FRASER.

THERE are two distinct species of this bird; one called *Bægma Dunnase*, and the other *Putteal Dunnase*.

I shall first treat of the *Bægma*, which is divided into two kinds; the specific marks of which I shall hereafter mention.

The *Bægma Dunnase* is a very remarkable bird, and, I believe, has not hitherto been described. As far as lies in my power I shall endeavour to rescue it from a situation so unworthy the distinction it has a strong claim to among the curious productions of nature.

It may be necessary to premise, that the names of *black-horned* and *white-horned* are given by myself, the natives not making any distinction between them. I have bestowed upon them these names from the difference of the bases of their horns.

Black-horned *Bægma Dunnase*, with a large double beak, or a large beak furnished by a horn, shaped like the upper mandible, which gives it the appearance of a double beak; the horn is hollow, at the base brown, with a broad edging of *black*, quite hard; a black mark runs from about one inch from the base to the point of the horn, very irregular in its breadth, in the centre reaches to the junction of the horn with the upper mandible: upper and lower mandible serrated, and separate from each other, about three inches in the middle of the beak longitudinally; upper mandible marked with black at its junction with the head, which part is quite hard; immediately below this, the lower mandible has a large black mark, which appears on both sides, and joins at the bottom; joining to this and covering the base of the lower mandible, is about an inch of white shrivelled skin; between these, at the edge of the mandible, is a small brown spot covered slightly with feathers; the rest of the beak and horn cream colour, patched with yellow, except the point, which is much whiter; the nostril placed at a small distance from the head, in the junction of the horn with the beak: head, neck, back, and coverts of the tail, black; breast, belly, thighs, and coverts of the vent, white; scapulars, greater and lesser coverts of the wings, black, varying to a greenish tinge; under coverts of

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the wings, white; primaries, white at their base, then black, with three inches of white at their ends; secondaries, nearly the same; tertials, black; a few white feathers on the outward edge of the wing, just below the shoulder; tail cuneiform, two middle feathers black, longer than the rest, which are white, four on each side: crested, close; the feathers extending a little way down the neck: eye, speculum black, irides reddish brown; the cheek, immediately round the eye, and extending from the beak to the ear, devoid of feathers, consisting of a shrivelled skin, which is nearly black; ear-feathers, about an inch long, extending partly across the head; tongue, short, formed like a dart with the ears of the barb raised above the shaft; near the epiglottis it swells to the size of a small nutmeg, which part is perforated: when the mouth is open, a black and brown knob appears below the upper mandible, rising from its base to an inch beyond its apparent junction with the head: legs and feet, black, tinged with brown, and dirty white: claws, large, and strong, three in front, and one behind: length upon an average from the forehead to the tip of the tail, two feet eight inches: extent, three feet two inches.

White-horned Bæga Dunnase, agreeing with the former in description, except in the following particulars: the horn in these is generally smaller, and blunter at the point, and at the base it is soft, consisting of a membranous substance; the ground white marked with crimson; the skin, which covers the base of the lower mandible, is very differently shaped and is much stained with crimson, only a small spot of black upon the upper mandible, where it joins the head, which junction is soft; eye black, the skin round the eye, extending to the ear, white marked with crimson; the ear-feathers form a curve, beginning in the centre of the black mark of the lower mandible running along it, and rising above the ear, where it joins the crest: in some I have observed the white tail-feathers marked in the web with black at their base: these birds in size are rather smaller than the first.

Putteal Dunnase, with a double beak, or horn, upon the upper mandible, over which it curves about half way, base hid in feathers; horn black, except at the lower edge, near the point, which is brown; the upper mandible black in the middle, shaded off to white at the point; lower mandible the same, white at the bottom, both serrated; a small black projection from the bottom of the lower mandible, crested, cinereous, tinged with brown; the feathers, from the eye to an inch over the beak, iron-grey, dashed with brown; ear-feathers dark iron-grey, forming a curve from the lower part of the eye, extending nearly across the head, under the crest; back, grey; neck the same, much lighter; breast, belly, thighs, and coverts of

of the vent, white; coverts of the tail, greyish brown; scapulars, greater and lesser coverts of the wings, lead colour; primaries at the base of the web, black, then dark grey, edged with white; each primary white at the end, near an inch; secondaries nearly the same; tertial greyish brown; under coverts of the wings, white; tail cuneiform, very long, two middle feathers reddish brown, longer than the rest, which are ferruginous, tipped with near an inch of white, above which is a mark much larger, black; eye, speculum black, irides reddish brown; from the beak to the ear-feathers, and round the eye, bare; this part is black; legs and feet black, marked with dirty white at the joints; claws large and strong; length two feet five inches, from the tip of the beak to the tip of the tail; extent two feet four inches.

The last of these birds is to be met with in almost every part of the country, more particularly where there are jungles: I have seen a variety of them at *Burragong* in *Sircar Sarun*, where, instead of the horn, they had a large knob at the base of the beak, very much resembling that of a wild goose: the one I have attempted to give a description of, was brought to me, at *Midnapore*, in which province and the extending hilly country, they abound. I have seen them in the vicinity of *Sheergotty*.

The *Bæma Dunnase* chiefly inhabits the western range of hills, extending from *Neelgūr* through *Moburbunge*, *Midnapore*, *Ramgur*, *Rotas*, towards *Bidzigur*. In *Ramgur* I have been informed by an intelligent person, they are to be seen in abundance, he told me that he had seen crouds of them on the *Peepul* trees; the berry of which they feed upon at times. Their note, or voice in concert, has a strong resemblance to the mournful cries of monkies, for which this person, deceived by the sound, at first took them. The place where I met with them, was at *Midnapore*, in the *jungles* adjacent to which they are to be found from the month of *November* to the month of *March* only, at which time, they retire to the hills to breed. I should have been highly pleased, could my curiosity have been gratified in the enquiries I made, respecting the æconomy of this extraordinary bird, but the people I had to deal with, were poor-ignorant folk from whom I could gain but little information; I therefore can do little more than ascertain one curious fact, and display some qualities of the bird, which may hereafter be of benefit, if thoroughly investigated by some person of medical skill.

These birds have a most remarkable appearance when in the act of flying, from the great size of their beaks, and length of tail. I have seen several of them in this

state; and a more uncouth object I never beheld. The beak, which forms the most prominent feature in this strange bird, may be considered as one of the most uncommonly curious among the feathered tribe. The *Toucan*, the *Spoonbill*, the *Pelican*, the *Dodo*, and others, certainly claim the attention of the naturalist; but in my humble opinion the *Bagma* has merits far superior, on the ground of rarity. The largest beak I ever saw was produced from a bird shot at a place called *Kullar*, about nine miles from *Midnapore*. The following is the measurement:

	Inches.
Length of the beak in a straight line from its junction with the head	8 $\frac{1}{2}$
Length of the horn from the base to the point	8 $\frac{1}{2}$
Depth of the whole beak, including the horn, near	4 $\frac{1}{2}$
The horn to its junction with the upper mandible	2 $\frac{1}{4}$
Each mandible in the centre of the beak	1
Distance from the point of the horn to the point of the beak	3

It may be proper to observe here, that the beak forms a much greater curve than the horn, the point of which is parallel to its junction with the beak; whereas the point of the beak comes down an inch and a quarter below the lower mandible. The following is the measurement of the bird to which this beak belonged.

	Feet.	Inch.
Length from the forehead to the tip of the tail	2	9
Circumference in the thickest part	0	15
Neck, from the chin to the shoulder	0	6
Body, from the shoulder to the rump	1	0
Tail, from the rump to the point	1	1
Height and breadth of the head	0	3 $\frac{1}{2}$
Circumference of the neck in the middle	0	6
Length of the wing, when closed	1	1 $\frac{1}{2}$
Ditto when open	1	5 $\frac{1}{2}$
Extent when expanded from tip to tip	3	3
Length of the legs	0	1 $\frac{1}{2}$
Ditto of the toes	0	2 $\frac{1}{4}$
Ditto of the claws, largest	0	0 $\frac{1}{4}$
Circumference of the legs	0	1 $\frac{1}{2}$

I have

I have to regret that I did not weigh this bird: indeed at the time I had no idea that I should attempt the description of it; I can only therefore venture to guess that it might weigh about six or seven pounds. I took a drawing of the bird, which has enabled me to give the above account.

I endeavoured to acquire some information from the bird-catchers respecting the use of the horn, upon the idea that *nature forms nothing in vain*; but all that I could learn was unsatisfactory, and amounted to little more than this: one of the beaks was brought to me with the horn very much worn at the point, which they told me proceeded from the bird's striking it against the trees; but for what particular purpose they so applied it, they could give no clear account.

But what may be probably deemed the most extraordinary circumstance relating to this curious bird is its feeding upon the *Nux vomica*. This is a point, which I have been able clearly to ascertain: one of these birds, purchased by Capt. JOHN CAMPBELL was opened by his orders, before several respectable gentlemen at *Midnapore*: and in its craw was found several seeds of the *Nux vomica*. With respect to my own observation, I have had only one opportunity of seeing the contents of the craw which was that of the bird shot at *Kullar*; nothing was found in it, but the remains of an egg and some weeds: but to carry on the enquiry, that I might be able safely to assert what appeared to me a circumstance of great curiosity, I asked the bird-catchers what these birds fed upon: they very particularly mentioned a fruit called *Coochla*; agreeably to my directions, they brought it to me: it was about the size of a lime, of an orange colour, with a very hard skin, shining and almost smooth, it contained a pulpy substance, distinct and separate from the shell: conversing since with a man, who had been in Major CRAWFORD's corps at *Jelda*, who had seen great numbers of these birds in the surrounding hilly country, I inquired of him what they fed upon; he said sometimes upon the berry of the *Peepul* tree, but that the food they affected most, and with which they were most delighted, was the *Coochla*, which he said was to be had in every *bazar*: he brought me some of it; it proved to be the true *Nux vomica*, which, from an account given to me by a native, is produced from the fruit above-mentioned; the pulpy substance drying leaves one, two, and sometimes three of the flat seeds, which are known as the *Nux vomica*: and this agrees with the account given of it by CASPER NEUMAN in his *Chemical Works*, who says, "*Nux vomica*, so called, is not a nut, but the seed of a fruit, like an orange, growing in the *East Indies*." The tree, which produces the *Coochla*, abounds in the range of western hills before mentioned; it varies in its size,

size, sometimes attains to a considerable height, has a leaf shaped like a heart: it appears from what I have said, that these birds feed not only upon the seed, when it has arrived at a state of maturity, but that they also eat it in the state it was brought to me by the bird catchers; and that, when the *Coochla* is not to be had, they resort to other food. These birds at particular seasons grow very fat, and this season appears to be, when the fruit of the *Nux vomica* prevails, about the month of *December*: the one before-mentioned, shot at *Kullar*, was killed in that month and was very fat. The natives make use of the fat, and also of the flesh and bones, as a medicine; they apply both species to this purpose. The cases they use it in, are in the contractions, which sometimes proceed from catching cold after the use of mercury; it is applied to alleviate and remove violent pains, that often succeed venereal complaints, called by the natives *Guttea ke Azar*: it is also used by the natives, in very cold weather, when the pores of the skin are affected, for, being in its nature extremely hot, in this case it causes a free perspiration; the *Bægma* is preferred to the *Putteal*, as being deemed more efficacious. The mode they apply it in, is this: they reduce the fat to an ointment, at the same time mixing with it every kind of spice, pepper, cloves, cardamums, &c. the flesh is also mixed in the same manner; the ointment is rubbed into the part affected every night when they go to sleep, and a certain portion of the meat is eaten in the morning rising: the gall is also used by the native women in cases of sterility. They take it either infused in water, or mix it with their *Pawns*, and of the efficacy of this they have the firmest reliance under providence. I enquired of the person, who gave me this account, whether he had ever known any one, who had been benefited by this medicine; he told me, that he was acquainted with a man, who had used it in contractions of his limbs, and that this person declared he had derived great advantage from the application: at any rate, it is certainly an opinion generally adopted by the natives, that it is of great use in cases I have mentioned. With every one, with whom I have conversed, the medicinal properties of this extraordinary bird are held in the highest estimation: they speak of it with a degree of admiration bordering on enthusiasm. Thus I have endeavoured from the slight ability I possessed, to bring forward to public notice one of the most curious birds I have ever seen or heard of: some allowance, I trust, will be made, from the consideration that this is my first essay; perhaps, I should never have made the attempt, but from having taken a drawing of the bird, and having heard of its feeding upon the *Nux vomica*: these circumstances induced me to give the above account. WOLF, in his description of
Ceylon,

Ceylon, has the following words: "a very rare species too of cock is found here, called double-billed; this has a white double bill, which is almost as large as the bird itself." It is by no means improbable, that this may be the same bird, which I have given an account of; the beak of the *Bægma Dunnase*, particularly when in the act of flying, appears to be as large as the bird itself; the depth in measurement is nearly the same. It is impossible to form any reasonable conjecture respecting the use of the horn: that some it must have, may naturally be supposed; but what, must be left to the future investigation of some one, whose situation will afford him full opportunity of making the inquiry; it is certainly an object worthy of attention, more particularly so, as tending to elucidate the wisdom of the Supreme Being, who undoubtedly creates nothing in vain.

REMARK BY THE PRESIDENT.

THOUGH the genus of the DHANE'SA be already known to our naturalists by the appellations of *Buceros*, *Calao*, and *Hornbill*, and though even the several species be distinguished, I believe, with exactness, yet we are obliged to Lieut. WHITE for a complete description of so extraordinary a bird, and for our knowledge of the singular facts, which he first made publick: the hollow protuberance at the base of the upper mandible, has been supposed, with reason, by COUNT GIKA to serve as a receptacle for nourishment, and the natives, I find, consider it as a natural cistern to supply the bird with water in the dry season and on its long excursions; whence the name of *Dhanéśa*, or *Lord of Wealth*, may possibly have been given to it. The count had been informed, that it was no other than the *Garuda* of Indian Mythologists; but the *Pandits* unanimously assure me, that, by the word *Garuda*, they mean in common discourse the *Gridhra*, or King of *Vultures*, and they have a curious legend of a young *Garuda*, or Eagle, who burned his wings by soaring too near the sun, on which he had fixed his eyes: the bird of VISHNU is in fact wholly mythological; and I have seen it painted in the form of a boy with an Eagle's plumage. As to the *Cuchilá* (for so is the word written and correctly pronounced) it is, no doubt, the *STRYCHNOS Nux vomica* or *Colubrina*, for they are now thought specifically the same: the leaves and fruit of both the varieties were brought to me by a *Bráhmén* as those of the *Cuchilá*, and he repeated a *Sanscrit* verse, in which it was called *Vanarája*, or *King of the Forest*; but, according to an approved comment on the *Amaracósh*, it has four other names, among which *Culaca* is the smoothest; that the

the first true species of this genus may be named *STRYCHNOS Culaca*, and the second, *STRYCHNOS Cataca*; by which denomination it is mentioned in the Laws of MENU, where allusion is made to the *Indian* practice of clearing water, by bruising one of the seeds and casting it into the jar, *where*, says KOENIG, *all impurities are in a few moments precipitated, and the water becomes perfectly limpid.*

ON THE ISLANDS NANCOWRY AND COMARTY.

By Lieut. R. H. COLEBROOKE.

THE island of *Nancowry*, or *Soury*, as it is sometimes called, is nearly centrically situated among the *Nicobar* isles. Its length may be about eight miles, and its breadth nearly equal. The island of *Comarty*, which is near it, is more extensive, but does not perhaps contain more solid land, being excavated by a very large bay from the sea. The space between these two islands forms a capacious and excellent harbour, the eastern entrance of which is sheltered by another island, called *Trikut*, lying at the distance of about a league. The inlet from the west is narrow, but sufficiently deep to admit the largest ships when the wind is fair.

The *Danes* have long maintained a small settlement at this place, which stands on the northernmost point of *Nancowry*, within the harbour. A serjeant and three or four soldiers, a few black slaves, and two rusty old pieces of ordnance, compose the whole of their establishment. They have here two houses, one of which, built entirely of wood, is their habitation; the other, formerly inhabited by their missionaries, serves now for a storehouse.

These islands are in general woody, but contain likewise some portions of clear land. From the summits of their hills the prospects are often beautiful and romantic. The soil is rich, and probably capable of producing all the various fruits and vegetables common to hot climates. The natural productions of this kind, which mostly abound, are cocoa-nuts, *papias*, plantains, limes, tamarinds, betel-nuts, and the *mél-lóri**, a species of bread fruit; yams, and other roots, are cultivated and thrive; but rice is here unknown. The *mangostain*-tree, whose fruit is so justly extolled, grows wild; and pine-apples of a delicious flavour are found in the woods.

* Mr. FONTANA has given an accurate and learned description of this fruit. Vide p. 449.

The *Nicobar* isles are but thinly inhabited, and some of them are not inhabited at all. Of those we visited, *Nancowry* and *Comarty* appeared to be the best peopled. There were thirteen villages, we were told, upon both islands; each village might contain, upon an average, fifty or sixty people; so that the whole population of these two will scarcely amount to eight hundred.

The natives of *Nancowry*, and of the *Nicobar* islands in general, live on the sea-shores, and never erect their habitations inland *. Their houses are of a circular form, and are covered with elliptical domes, thatched with grass and the leaves of cocoa-nut. They are raised upon piles to the height of six or eight feet above the ground; the floor and sides are laid with planks, and the ascent is by a ladder. In those bays or inlets which are sheltered from the surf, they erect them sometimes so near the margin of the water as to admit the tide to flow under, and wash away the ordure from below.

In front of their villages, and a little advanced in the water, they plant beacons of great height, which they adorn with tufts made of grass or the bark of some tree. These objects are discernible at a great distance, and are intended probably for landmarks; their houses, which are overshadowed by thick groves of cocoa-nut trees, seldom being visible from afar.

The *Nicobarians*, though indolent, are in general robust and well limbed. Their features are somewhat like the *Malays*, and their colour is nearly similar. The women are much inferior in stature to the men, but more active in all domestic affairs. Contrary to the custom of other natives, they shave the hair of their heads, or keep it close cropt; which gives them an uncouth appearance, in the eyes of strangers at least. The dress of both sexes, their mode of life, and some of their customs, have been so ably described by Mr. FONTANA, that little needs be said of them here: I have only to state, in addition, an extraordinary ceremony, which they annually perform in honour of the dead.

On the anniversary of this festival, if it can be so called, their houses are decorated with garlands of flowers, fruits, and branches of trees. The people of each village assemble, dressed in their best attire, at the principal house in the place, where they spend the day in a convivial manner; the men sitting apart from the women, smoke tobacco and intoxicate themselves, while the latter are nursing their children and

* The great *Nicobar* island is perhaps an exception, where, it is said, a race of men exists, who are totally different in their colour and manners. They are considered as the *Aborigines* of the country. They live in the interior parts, among the mountains, and commit frequent depredations on the peaceable inhabitants of the coasts.

employed in preparations for the mournful business of the night. At a certain hour of the afternoon, announced by striking the *Goung**, the women set up the most dismal howls and lamentations, which they continue without intermission till about sun-set; when the whole party gets up, and walks in procession to the burying ground. Arrived at the place, they form a circle around one of the graves, when a stake, planted exactly over the head of the corpse, is pulled up. The woman, who is nearest of kin to the deceased, steps out from the crowd, digs up the scull †, and draws it up with her hands. At sight of the bones, her strength seems to fail her; she shrieks, she sobs; and tears of anguish abundantly fall on the mouldering object of her pious care. She clears it from the earth, scrapes off the festering flesh, and laves it plentifully with the milk of fresh cocoa-nuts, supplied by the bystanders; after which she rubs it over with an infusion of saffron, and wraps it carefully in a piece of new cloth. It is then deposited again in the earth, and covered up; the stake is replanted, and hung with the various trappings and implements belonging to the deceased. They proceed then to the other graves, and the whole night is spent in repetitions of these dismal and disgusting rites.

On the morning following, the ceremony is concluded by an offering of many fat swine, when the sacrifice, made to the dead, affords an ample feast to the living; they besmear themselves with the blood of the slaughtered hogs, and some, more voracious than others, eat the flesh raw. They have various ways however of dressing their meat, but always eat it without salt. A kind of paste made of the *mellóri* serves them for bread, and they finish their repast with copious potations of *taury*.

The *Nicobareans* are hospitable and honest, and are remarkable for a strict observance of truth, and for punctuality in adhering to their engagements. Such crimes as theft, robbery, and murder, are unknown in these islands; but they do not want spirit to revenge their injuries, and will fight resolutely and slay their enemies, if attacked or unjustly dealt with ‡. Their only vice, if this failing can be so called, is inebriation, but in their cups they are generally jovial and good humoured. It sometimes however happens at their feasts, that the men of different villages fall out,

* An instrument of brass, somewhat like the *Gury* of Bengal. Its sound is more hollow.

† We were present at the ceremony on the 1st of February, 1790, when the first skull we saw was that of a woman, who had been buried but a few months before. It was then dug up for the first time by her daughter. This office, we are told, is always performed by the women, whichever sex the skull belongs to. A man in a fantastic habit officiates as priest.

‡ We are informed, that a party of *Malays* had once landed at *Nancowry*, to commit depredations, and were cut off to a man by the enraged inhabitants. A similar instance of their vengeance is said to have happened at the island *Carnicobar*, when they put to death some sailors who were plundering their houses, and probably attempting to violate their women.

and the quarrel immediately becomes general. In these cases, they terminate their differences in a pitched battle, where the only weapons used are long sticks, of a hard and knotty wood. With these they drub one another most heartily, till, no longer able to endure the conflict, they mutually put a stop to the combat, and all get drunk again.

ON THE LORIS, OR SLOW-PACED LEMUR.—*See the Works of Sir William Jones, Vol. I. p. 548.*

ASTRONOMICAL OBSERVATIONS MADE IN THE UPPER PARTS OF HINDUSTAN, AND ON A JOURNEY THENCE TO OUJEIN.

By WILLIAM HUNTER, *Esq.*

BEFORE delivering the following observations, it will be proper to give some account of the instruments, with which they are made. The altitudes for determining latitudes and time, were taken with a sextant, of ten inches radius, made by TROUGHTON: the limb is divided into degrees, and thirds of a degree, and the divisions on the vernier go to half minutes; so that, by the help of the magnifying lens, a difference of ten seconds is sufficiently perceptible. The two specula, being screwed down in their places, do not (as far as I can discover) admit of the principal, or vertical, adjustment: but the error was almost daily ascertained by the double mensuration of the sun's diameter, and constantly allowed for. It is subtractive, and my determination of its quantity varied from $2' 30''$ to $3' 30''$. These differences may have in part arisen from a real variation in the quantity of this correction; but I ascribe them chiefly to some inaccuracy in my mensuration of the sun's diameter. To form some judgement of the influence this cause might have, I have examined twenty-three of those measurements, made between the 7th of *March* and the 7th of *June* (being all of which I have any record), by taking the medium of the sun's diameters as measured on the limb, to the right and left of zero, and comparing it with the diameter for that day, as laid down in the *Ephemeris*. It will appear, from a list of those observations, that my measurements commonly exceeded those given in the *Ephemeris*; but the greatest excess was $25''$.

MENSURATIONS OF THE SUN'S DIAMETER.

1792.	Adjustment of Sextant. Subtract.	Difference of the Sun's diameter, measured from that in the Ephemeris.
March 7	2' 34"	+ 8'
9	3 —	+ 14
11	2 30	+ 14
13	2 52	+ 24
15	3 15	+ 1
17	3 15	+ 3
18	3 7	+ 10
19	3 15	+ 3
20	3 7	+ 25
21	3 15	+ 4
22	3 15	+ 20
23	3 22	+ 12
24	3 8	+ 13
25	3 15	+ 7
28	3 15	+ 9
31	3 15	+ 10
April 1	3 15	+ 11
3	3 15	+ 12
10	3 30	— 3
11	3 15	+ 15
17	3 —	+ 5
May 29	2 37	— 7
June 7	2 52	+ 1

These mensurations may have a farther use, besides ascertaining the adjustment of the quadrant. If the eye could determine, with perfect accuracy, the contact of the limbs, the mean between the two measurements of the sun's diameter would be exactly equal to his apparent diameter, as determined by calculation, and given in the *Ephemeris*; but, from the imperfection of our organs, it happens, that the limbs will

sometimes

sometimes appear to be in contact, when a little space remains between them; at others, when they overlap one another: in the former case, the diameter will appear greater, in the latter, less than the truth. But it is probable, that at nearly the same period of time, the state of the eye, or of the sensorium, by which we judge of this contact, is, in the same person, nearly the same. Of this I have made some trials, and found, that when the sun's diameter, by my mensuration, differed from that in the *Ephemeris*, on repeating the mensurations, at short intervals, the difference remained nearly the same. Therefore, if we observe the sun's altitude, a little time before or after measuring his diameter, the contact of the limbs will, probably, appear to take place, in the same real situation of those limbs, as when we measured the sun's diameter. But here, the effect of too open, or too close, observation will be reversed; the former making the altitude appear less, the latter greater than the truth. These measurements then may be applied, as corrections of the observed altitude. Thus, if the diameter of the sun has appeared too great, add the quantity of its excess to the angle observed, between the sun and his image in *Mercury*; if it appeared too small, subtract the defect, to give the true angle. Thus, *March* the 13th, the error of the sextant was 2' 52", to be subtracted. But the measurement of the sun's diameter exceeds the truth, by 24". Therefore, this quantity is to be added to the observed angle, the observation being, probably, so much too open.

The angle between the sun and his image in quicksilver, that day at noon, was		123° 33' 45"
Error Sextant	— 2' 52"	
Do. Observation	+ 0 24	
	Diff.	— 2 28
		2) 123 31 17
Diff. refr. and parallax		61 45 38, 5
		— 26, 5
Sun's Semidiameter		61 45 12
		+ 16 7
Sun's Declin. South		62 1 19
		+ 2 36 23
Co-Latitude		64 37 42
Latitude of <i>Burwa Sagur</i>		25 22 18

which is 13" less than in the following list, where this error was not allowed for.

The

The secondary, or horizontal, adjustment, made by a small screw at the fore-part of the little speculum, was, from time to time, carefully attended to.

The altitudes were taken by means of the image in quicksilver, which, if the sun was the object, was defended from the wind by covering of thin gauze, as recommended by Mr. BURROW in the first volume of the *Asiatick Researches*. When the altitude of a star was to be taken, this method did not answer; as it rendered the image too obscure. A thick cloth was therefore properly disposed to windward of the mercury.

The small telescope belonging to the sextant was used in all the observations.

As the instrument is only graduated to 125 degrees, I could not take altitudes exceeding 62 degrees. While the sun's meridian altitude could be observed, I have preferred it, for the latitude: but, as this was soon about to be impracticable, I began, on the 29th of *February*, to compare the latitudes by meridian altitude, with those obtained from two altitudes and the elapsed time, by the rule in the requisite tables, in order to judge how far the latter might be depended on. The result of the comparison, which appears in the observations from that time to the 15th of *March*, determined me to trust to those double altitudes, while they could be taken within the prescribed limits; at the same time, comparing them occasionally with observations by a fixed star. From the first of *April*, I was obliged to trust entirely to the stars; and to make the observations by them as accurate as possible, I have, when circumstances would allow, taken the meridian altitude of one to the north, and another to the south, of the zenith. The telescope is an achromatick, made by DOLLAND, of twenty-eight inches focal distance. It inverts the object, and magnifies eighty times.

The watch is made by BROOKBANK, with horizon balance wheel, and continues to go while winding up. To determine, as accurately as possible, the time of an observation, I took equal altitudes of the sun, on the days preceding and following it, and, having thus found the quantity gained or lost in twenty-four hours, applied to the time of observation a part proportional to its distance from the preceding or following noon. In this calculation, allowance was made for the difference of longitude (ascertained by geometrical survey) if the altitudes on the two days were taken at different places. Besides this I have, when I had the opportunity, taken the altitudes of two fixed stars, one to the east, and another to the west of the meridian, within an hour before or after the observation, and calculated the time from them.

OBSERVATIONS OF LATITUDE IN UPPER HINDUSTAN.

1791-2.	P L A C E.	Sun or Star	Latitude.	REMARKS.	1792.	P L A C E.	Sun or Star.	Latitude.	REMARKS.
May 24	Agra; Monument of Taj Mahl,	α m	27 10 00	doubtful.	Mar 15	Puripoor; N 80 W—N 18 E 1 f.	⊙ M. A.	25 12 53	
25	Ditto,	α m	27 10 11	distinct.		Ditto,	⊙ 2 A.	25 12 33	
Nov. 1	Lucnow; Mr. Taylor's House,	⊙	26 51 9	clear.	16	Bunawry; N 2 W—N 42 W 1 f.	⊙ 2 A.	25 2 6	
24	Futteebugub; Mr. Phillips's Bungalow, near the centre of cantonments,	⊙	27 21 5	cloudy.	17	Belgaung; N 1 f.	⊙ 2 A.	24 53 11	
25	Ditto,	⊙	27 21 54	clear.	18	Teary; N 55 E 2	⊙ 2 A.	24 43 30	
26	Ditto,	⊙	27 22 46	ditto	19	Marouny; Fort, S 75 E 2	⊙ 2 A.	24 35 1	
28	Ditto,	⊙	27 21 44	ditto	20	Sindwaba; N 55 E 2	⊙ 2 A.	24 31 34	
Dec. 4	Gurciab Village, bearing N 1 E 1/4 mile,	⊙	27 28 42	ditto	21	Naray; Temple of Hanuman, S 14 E 3 1/2	⊙ 2 A.	24 24 25	
9	Ditto,	⊙	27 29 11	ditto	22	Maltoori; Fort, N 14 E diff. 10 f.	β U. M.	24 24 40	
Jan. 24	Dehliab; near the Bungalow,	⊙	27 21 5	ditto	23	Khemisab; N 48 E—N 57 W 2	β U. M.	24 13 44	
25	Nawalgunge; bg. E. diff. 3 furl.	⊙	27 26 12		24	Rampoor; N 5 E—N 43 W	⊙ 2 A.	24 6 18	windy.
26	Allygunge; Moque, S 72 E	⊙	27 30 00		25	Koorvey; Fort, N 42—52 W 3	⊙ 2 A.	24 7 25	
27	Doomree; Fort, S 22 E diff. 2 1/2 f.	⊙	27 32 41	clear, windy.	26	Kirwaab; close to the village,	⊙ 2 A.	23 57 31	windy.
28	Sukbeer; NW 2 1/2 f.	⊙	27 25 15	{ Sun had begun to fall.	27	Bayanda; N 35 W 3	⊙ 2 A.	23 53 25	
29	Giraul; Fort, S 10 W 1 1/2 f.	⊙	27 11 13			Ditto,	β U. M.	23 40 56	cl. moderate, a diff. oberv.
30	Shekabad; Agra-gate, S 55 E 7 f.	⊙	27 6 58		28	North Bank Calcutta River,	⊙ 2 A.	23 41 48	
Feb. 1	Ferozabad; Gate, S E 3 f.	⊙	27 9 14		29	Bheslab; S 56 C 4	⊙ 2 A.	23 31 19	
2	Eatmadpoor; Tank, S 67 W 2 f.	⊙	27 14 7		30	Ditto,	β U. M.	23 32 1	clear, calm.
3	Agra; Monument of Taj Mahl.	⊙	27 10 28		31	Ditto,	α m	23 31 39	
9	Ditto,	⊙	27 10 38	cloudy.	April 1	Goolga g; N 58 E 2	⊙ 2 A.	23 32 5	
20	Camp at Gohar Chokey,	⊙	27 9 23	clear.		Ditto,	β U. M.	23 31 33	clear, moderate.
21	Ditto,	⊙	27 9 51		2	Amiary; N 67 E 2	β U. M.	23 28 46	clear, calm.
23	Baad; bearing N 2 E diff. 3 f.	⊙	27 3 23			Ditto,	α m	23 24 20	
24	Mumliab; S 30 W - - - 1	⊙	26 49 48		4	Bopaul; Futteebugub Fort, S 62 68 W 1 mile,	β U. M.	23 15 46	
25	Dholpoor; S 8 W - - - 3	⊙	26 41 41			Ditto,	α m	23 16 35	
27	Choola; Fort, N 44 W 3	⊙	26 37 25	{ a cloud came over the sun before he reached the Meridian.	5	Ditto,	β 2	23 15 58	
28	Noorabad; Garden, S 3 E 2	⊙	26 24 17	clear.	7	Pundab; N 42 E—S 82 E 1 f.	β U. M.	23 13 50	
29	Gualior; Hill, S 3 E—S 45 E.	⊙ M. A.	26 15 7	windy.		Ditto,	α m	23 13 45	
Mar. 2	Ditto,	⊙ M. A.	26 15 38		8	Sabone; S 85 E 2 1/2	α m	23 12 00	
6	Antery; Fort, S 10 W diff. 4 f.	⊙ M. A.	26 14 48		9	Furber; N 28—55 W 4 1/2	β U. M.	23 14 5	
7	Dibborah,	⊙ M. A.	26 4 20		10	Shujawalpoor; N 18 W—N 80 E 3	β U. M.	23 24 54	
8	Ditto,	⊙ M. A.	25 53 43		11	Bemfoud; N 64 E—S 65 E 1	α Hydre	23 25 54	
	Ditteah, S 32 E diff. 3 1/4 miles,	⊙ 2 A.	25 53 51		12	Shahjehanpoor; S 83 W	α Hydre	23 26 9	
9	Ditto,	⊙ 2 A.	25 43 1			Ditto,	β U. M.	23 25 46	
	Ditto, Rajah's House, NW 3 f.	⊙ 2 A.	25 43 9		13	Turana; N 70 W 3 1/2	β U. M.	23 20 2	
11	Ditto,	⊙ M. A.	25 39 44			Ditto,	α Hydre	23 19 39	
	Jhanpy; S E angle fort, N 88 E 2 1/2 f.	⊙ 2 A.	25 39 27		14	Taipoor; close to the village,	α Hydre	23 14 47	
12	Ditto,	⊙ M. A.	25 27 56			Ditto,	β U. M.	23 13 1	
13	Ditto,	⊙ 2 A.	25 28 1		15	Oujein; near RANA KHAN's Garden,	α Hydre	23 12 9	
	Ditto,	⊙ M. A.	25 27 45		16	Do.	α Hydre	23 12 13	
14	Burwah-Sagar; Castle, N 51 E 7 1/2 f.	⊙ M. A.	25 22 31		18	Do.	β U. M.	23 10 58	
	Ditto,	⊙ M. A.	25 21 16		19	Do.	α Hydre	23 12 13	
	Ditto,	⊙ 2 A.	25 21 16		20	Do.	β U. M.	23 10 50	
	Ditto,	⊙ M. A.	25 22 31	clear.	23	Do.	α m	23 11 28	
		⊙ M. A.	25 22 31		May 29	Do. house near SCINDIAH's Pal.	α m	23 11 8	
		⊙ M. A.	25 22 31		June 14	Do.	α m	23 10 41	

Eclipses of JUPITER'S SATELLITES, observed with DOLLAND'S achromatic Telescope, magnifying eighty Times.

Apparent Time.	Date	Im. or Em.	PLACE OF OBSERVATION.	Longitude.	WEATHER.	REMARKS.
1791. D. H.	"			° ' "		
May 11 11 58 56	1	Em.	Agra; Monument Taj Mahl,	78 11 00	clear, windy.	
18 7 44 24	2	Em.	Ditto,	77 58 00	clear, moderate.	
26 10 22 10	2	Em.	Ditto,	78 22 00	ditto	
June 19 10 25 26	1	Em.	Ditto,	78 27 15	ditto	
24 10 13 41	3	Em.	Ditto,	77 20 30	ditto	
Dec. 27 17 17 42	3	Em.	Fatehgarh; Mr. Phillips's Bungalow	79 28 15	ditto	
31 16 13 26	2	Im.	Ditto,	79 1 30	ditto	
1792.						
Jan. 17 17 6 53	1	Im.	Ditto,	79 32 45	cloudy, calm.	
26 13 24 8	1	Im.	Alhyunge,	79 00 30	clear, calm,	a distinct observation.
Feb. 1 15 27 52	2	Im.	Feerozabad,	78 13 15	ditto	
2 15 12 32	1	Im.	Eatunadpoor,	78 1 30	ditto	Telescope somewhat unsteady.
8 17 57 17	2	Im.	Agra; Monument Taj Mahl	77 33 00	thin clouds, calm,	Day beginning to break.
9 17 4 19	1	Im.	Ditto,	77 41 30	clear, calm.	
18 13 27 1	1	Im.	Ditto,	77 47 30	a little hazy, calm,	
Mar. 15 10 33 48	3	Im.	Pertipoor,	77 29 15	clear, calm.	a distinct observation.
12 31 48	3	Em.	Ditto,	77 52 00	ditto	
21 10 7 5	1	Im.	Narat,	78 2 00	ditto	
22 9 23 58	2	Im.	Maltown,	77 56 15	ditto	
28 12 2 4	1	Im.	N. Bank, Calcutta, R.	77 44 15	ditto	
29 11 57 13	2	Im.	Bléslab,	77 22 45	ditto	a distinct observation.
April 5 14 31 52	2	Im.	Bopaul,	77 9 45	ditto	Planet at the inst. of immersion some- what obscure.
6 8 26 6	1	Im.	Ditto,	77 24 30	ditto	Planet too near the moon.
13 10 17 23	1	Im.	Turana,	76 10 15	ditto	Moon near thin haze near the horizon.
20 14 22 18	1	Em.	Ugein; near Rana Khan's Garden,	76 19 00	clear, windy.	Satell. immersed close to Jupiter's body.
22 8 48 49	1	Em.	Ditto,	75 43 30	clear, moderate.	
23 11 27 55	2	Em.	Ditto,	75 49 00	ditto	
29 10 44 42	1	Em.	Ditto,	75 29 00	ditto	
30 14 4 25	2	Em.	Ditto,	75 46 45	ditto	
6 21 40 21	1	Em.	Ditto,	75 51 15	ditto	
May 13 14 36 11	1	Em.	Ditto,	76 7 45	ditto	
15 9 3 22	1	Em.	Ditto,	75 46 00	ditto	
9 2 28	1	Em.	Ugein; House near Scindiall's	75 32 30	hazy.	Time from observ. of Regulus—Time from eq. alt. of ☉ on 14th & 16th.
29 12 52 41	1	Em.	Ditto,	76 00 56	clear, moderate.	Satell. emerg. very dim.
June 7 9 14 21	1	Em.	Ditto,	75 55 00	ditto	Observation very distinct.
14 11 7 49	1	Em.	Ditto,	75 56 00	ditto	Ditto.

** Not having the Opportunity of comparing these Observations with contemporary ones, taken at *Greenwich*, or at Places the Longitudes of which from that Observatory are ascertained, I have considered the Times of the Eclipses given in the EPHEMERIS as accurate, and thence deduced the Longitude from *Greenwich*.

LATITUDES OBSERVED IN UPPER HINDUSTAN.

1792.		P L A C E.	Sun or Star.	Latitude.	R E M A R K S.
Oct.	7	Oujein, Camp at SHAH DAWUL's Durgah	☉ M. A.	23 12 4	clear, calm
	8	Ditto, Ditto, - - -	ditto.	23 11 45	
1793.					
Feb.	24	Ditto, Camp near RANA KHAN's Gar- den, - - -	ditto.	23 11 30	
March	13	Ditto, Camp at Unk-Pat - - -	α Hydræ.	23 14 2	
	14	Gutteah, - - -	α Hydræ.	23 23 55	
	15	Tenaureah, - - -	ditto.	23 36 10	
	16	Ager, - - -	ditto.	23 43 48	
	17	Soofner (N 10 68 W. dist. 2 fur.) - - -	Sirius. α Hydræ.	23 56 47 23 57 56	med. 23° 57' 21"
	18	Perawa, - - -	Sirius. α Hydræ.	24 9 11 24 9 18	med. 24° 9' 14"
	19	Soonél (N 18 W dist. 3. 58 fur.) - - -	Sirius.	24 22 11	
	21	Fulmee (from S to S 35 W dist. 2. 33 fur.) - - -	α Hydræ.	24 36 4	
	22	Mucundra, - - -	α Hydræ.	24 49 27	
	23	Puchpabar (N 10 E dist. 4. 5 f.) - - -	β U. M.	24 59 39	
	24	Anandpoor, - - -	ditto. α m	25 6 40 25 7 31	med. 25° 7' 5"
	25	Kotah (Camp near Bag-Dur-waza) - - -	β U. M.	25 11 41	
	28	Gaumuch (S 77 E dist. 3 f.) - - -	ditto.	25 16 56	
	29	Teekeree (S 10—60 W dist. 1 f.) - - -	β U. M.	25 20 53	
	30	Boondee (Rajah's Mahl N 42 W) - - -	ditto.	25 26 38	
	31	Dublana (from S to S 80 E dist. 1 fur.) - - -	ditto.	25 35 45	
April	1	Doogáree (S W) - - -	ditto.	25 40 00	
	2	Barmen-gaung (E to S 15 E dist. 1 fur.) - - -	ditto.	25 45 8	cloudy, uncertain
	3	Ooniara (S to S 63 E dist. 7 f.) - - -	ditto.	25 53 8	ditto, ditto
	4	Ditto, - - -	ditto.	25 54 53	clear { med.
	6	Ditto, - - -	ditto.	25 55 15	clear, mod. { 25° 55' 4"
	8	Burwárah (S 22 E to N 47 E dist. ex- tremes, 2 f.) - - -	ditto.	26 3 31	ditto, ditto
	9	Bhugwunt-gurb (N 30—85 W. dist. 3 f.) - - -	ditto.	26 9 16	ditto, ditto
	10	Kbeernee (S 30—82 E dist. 1 f.) - - -	ditto.	26 16 9	ditto, ditto
	11	Mulárna (S 57—80 W dist. 3. 2 f.) - - -	ditto.	26 19 9	ditto, windy
	12	Amergurb (S 20 E dist. 2 f.) - - -	ditto.	26 27 9	ditto, moderate
	13	Khoosb-hal-gurb (N 55—65 E dist. 4 f.) - - -	α Hydræ.	26 28 9	ditto, ditto { med.
		Ditto, - - -	β U. M.	26 28 34	{ 26° 28' 22"
	14	Peelaudob (N 60—80 E dist. 3 f.) - - -	α Hydræ.	26 35 54	ditto, ditto { med.
		Ditto, - - -	β U. M.	26 36 39	{ 26° 36' 16"
	15	Hindoun (N 12 W to N 80 E dist. near- est 1 f.) - - -	α Hydræ.	26 43 24	clear, mo- { med.
		Ditto, - - -	β U. M.	26 43 39	derate { 26° 43' 31"
	16	Surout (S 48 W to W distant 2. 6.) - - -	β U. M.	26 49 2	ditto, ditto { med.
		Ditto, - - -	β α.	26 48 39	{ 26° 48' 54"
	17	Biána (S 32 W to S 48 E dist. 1 f.) - - -	α Hydræ.	26 55 40	ditto, ditto { med.
		Ditto, - - -	β U. M.	26 55 9	ditto, wind { 26° 55' 24"
	18	Rudáwul (N 5—50 W dist. 2 f.) - - -	α Hydræ.	26 58 25	ditto, moderate
	19	Kánua (S 69 E to N 88 E dist. 3 f.) - - -	ditto.	27 2 25	ditto, ditto { med.
		Ditto, - - -	β U. M.	27 1 55	{ 27° 2' 10"
	20	Futtehpoor (Camp within Chut-nunpooree Durwaza) - - -	α Hydræ.	27 5 55	ditto, ditto { med.
		Ditto, - - -	β U. M.	27 5 32	{ 27° 5' 43"

ECLIPSES OF JUPITER'S SATELLITES IN UPPER HINDUSTAN.

Apparent Time.	Satel.	Im. or Em.	Place of Observation.	Longitude.	Weather.	REMARKS.
1793. D. H. M. S.				° ' "		
Mar. 24 12 48 26	1	Im.	Anandpoor, - - -	75 25 30	clear, mod.	
30 13 16 29	2	Im.	Boondee, - - -	75 6 15	ditto, ditto	
31 14 43 35	1	Im.	Dublana, - - -	75 15 45	ditto, ditto	
April 6 10 55 26	3	Em.	Ooniara, - - -	76 25 45	ditto, ditto	The satellite had emerged some time before I perceived it.
— 15 54 6	2	Im.	Ditto, - - -	75 41 45	ditto, ditto	By observations of Procyon and Arcturus, at $\frac{1}{2}$ past 9 P.M. watch slow $10^{\circ} 56''$, and by this the time is adjusted. But on the 7th at $7\frac{1}{2}$ A. M. by the Sun, watch slow, only $8^{\circ} 5''$, being $2^{\circ} 51''$ gained in 10 hours. If we allow a proportionable gain to the time of immersion $-1^{\circ} 49''$, the time was $15^{\circ} 52' 17''$ and Longitude $75^{\circ} 14' 30''$.
9 11 11 26	1	Im.	Bhugwunt-gurb, - - -	76 2 30	ditto, ditto	
13 13 1 8	3	Im.	Khoosb-hal-gurb, - - -	75 57 30	ditto, ditto	
— 14 54 38	3	Em.	Ditto, - - -	76 8 30	ditto, ditto	Med. 76.3.
16 13 10 24	1	Im.	Surout, - - -	76 51 30	ditto, ditto	
May 9 13 27 45	1	Im.	Agra, Rozeh Taj Mahl, - - -	77 36 45	ditto, ditto	

1793. Feb. 25th, at Oujein, Moon eclipsed.

At 3 P. M. watch by the Sun	10' 58" flow	} med. 10' 30"
At $12\frac{1}{4}$ P. M. by Procyon	9 59 do.	
At $14\frac{3}{4}$ by Lyra	10 32 do.	
By Watch	14° 14' —"	
	+ 10 30	

Apparent Time, 14 24 30 A slight obscurity began on the Moon's N.E. limb.

h. ' "	
14 18 —	
+ 10 30	
14 28 30	{ Dark shadow distinctly seen to enter.
17 00 00	
+ 10 30	
17 10 30	Eclipse ended—Limb clear.

If we reckon the beginning of the eclipse from the first perceptible obscurity; i. e.

Then beginning by *Ephemeris* 9 23 45

Diff. of Long. in time - 5 00 45 75° 11' 15"

But, reckoning from the entrance of the dark shadow, the difference is - - -

The end, by observation - 17 10 30
By *Ephemeris* - 12 6 30

5 4 00 76° 00' 00"

Beginning of obscurity - 14 24 30
End - 17 10 30Middle - 15 47 30
Ditto by *Ephemeris* - 10 45 15

5 2 15 75° 33' 45"

Duration observed - 2 46 00
By *Ephemeris* - 2 42 45

Excess of observation - 00 3 15

As the state of the limbs at the times marked as the beginning of obscurity and end of the eclipse were similar; if we add half this difference ($1^{\circ} 37'$) to the first of these times, and subtract it from the last, we shall have the beginning - - - 14° 26' 7"End - - - 17 8 53
Either of which will give the longitude 75 35 40

REMARK

REMARK BY THE PRESIDENT.

THE observations, with which Mr. HUNTER has favoured us, will be a valuable acquisition to all *Indian* geographers and antiquaries; for, since *Ujjayini*, or *Ujjein*, is in the first meridian of the *Hindus*, its longitude ascertains the position of *Lancá* on the equator, and fixes the longitude, at least according to the *Hindu* astronomers, of *Curucshetra Vatsa*, the Pool *Sannibita Cāncbi*, and other places, which are frequently celebrated in *Sanscrit* books of the highest antiquity. Hence also we shall possibly ascertain the seven *dwīpas*, which, on the authority of PATANJALI and of the *Vēda* itself, we may pronounce to be neither the *seven planets* nor the *seven climates*, but great *peninsulas* of this earth, or large tracts of land with *water on both sides* of them: for example, in a preface to the *Sūrya Siddhānta*, the peninsula, called *Sālmala*, is declared to be 422 *Yōjanas* to the east of *Lancá*; now a true *Yōjana* is equal to $4\frac{1}{4}$ geometrical miles; and the longitude of *Sālmala* will thus bring us to the Gulph of *Siam*, or to the eastern *Indian* peninsula beyond *Malacca*. There is a passage in one of the *Purānas*, which confirms this argument; where king SRA'VANA is described "on the *White Mountain* in the extensive region of *Sālmaladwīpa*, meditating on "the traces of the divine foot, at a place called the station of TRIVICRAMA:" now we are assured by credible travellers, that the *Siamese* boast of a rock in their country, on which a *footstep*, as they say, of VISHNU is clearly discernible.

QUESTIONS AND REMARKS ON THE ASTRONOMY OF THE HINDUS.

By JOHN PLAYFAIR, A.M. *Professor of Mathematicks, at Edinburgh.*

Written 10th of October, 1792.

PRESUMING on the invitation given with so much liberality in the Advertisement prefixed to the second volume of the *Asiatick Researches*, I have ventured to submit the following queries and observations to the President and other Members of the learned Society in *Bengal*.

I.

Are any Books to be found among the Hindus, which treat professedly of Geometry?

I am led to propose this question, by having observed, not only that the whole of the *Indian Astronomy* is a system constructed with great *geometrical* skill, but that the *trigonometrical* rules, given in the translation from the *Sūrya Siddhānta*, with which Mr. DAVIS has obliged the world, point out some very curious theorems, which must have been known to the author of that ancient book. The rule, for instance, by which the trigonometrical canon of the *Hindu* astronomers is constructed *, involves in it the following theorem: “ If there be three arches of a circle in arithmetical progression, the sum of the sines of the two extreme arches is to twice the sine of the middle arch, as the co-sine of the common difference of the arches to the radius of the circle.” Now this theorem, though not difficult to be demonstrated, is yet so far from obvious, that it seems not known to the mathematicians of *Europe* till the beginning of the last century, when it was discovered by VIETA. It has ever since been used for the construction of trigonometrical tables, as it affords a method of calculating the sines and arches much easier than that which depends on successive extractions of the square root. To find that this theorem was known to the *Brāhmens* many ages ago, is therefore extremely curious; and the more so, because there is some reason to think that the commentator on the *Siddhānta*, quoted and translated by Mr. DAVIS †, did not understand the principle of this rule, since the method which he lays down is entirely different, much less profound in theory, and much more difficult in practice. If this be true, it indicates a retrograde order in the progress of eastern science, which must have had its origin in a very remote age.

II.

Are any books of Hindu Arithmetick to be procured?

It should seem, that if such books exist, they must contain much curious information, with many abridgments in the labour of calculating, and the like; all which may be reasonably expected from them, since an arithmetical notation, so perfect as that of *India*, has existed in that country much longer than in any other;

* 2 Asiatick Researches, 245.

† P. 246, 247.

but that which most of all seems to deserve the attention of the learned, is, the discovery said to be made of something like *Algebra* among the *Hindus*; such as the expression of number *in general* by certain symbols, and the idea of negative quantities. These certainly cannot be too carefully enquired into; and will, it is hoped, be considered by the Society at *Calcutta* as a part of that rich mine from which they have already extracted so many valuable materials. The problem mentioned by Mr. BURROW * proves, that the *Hindus* have turned their attention to certain arithmetical investigations, of which there is no trace in the writings of the *Greek* mathematicians.

III.

Must not a complete translation of the Sûrya Siddhânta be considered as the grand desideratum with respect to Indian Astronomy?

Sir W. JONES gives us reason, I think, to hope, that this will be executed by Mr. DAVIS; and the specimen which that gentleman has exhibited, leaves as little reason to doubt of his abilities to translate the work accurately, as of the great value of the original: I have therefore only to express a wish, that if there be any diagrams in the *Sûrya Siddhânta*, they may be carefully preserved.

IV.

Would not a Catalogue Raifonné, containing an enumeration, and a short account of the Sanscrit books on Indian Astronomy, be a work highly interesting and useful?

V.

Might not an actual examination of the heavens, in company with a Hindu Astronomer, to ascertain all the stars and constellations, for which there are names in Sanscrit, prove a most valuable addition to our knowledge of Indian Astronomy?

Let me here take the liberty of reminding the President of his promise to make such an examination; by which the mistakes concerning the *Indian Zodiack*, some of which he has already pointed out, may be decisively corrected.

* 2 Aflat. Ref. 495.

VI.

May it not be of consequence to procure descriptions of the principal astronomical buildings and instruments of which any remains are still to be found, and which are certainly known to be of Hindu origin?

Under this head I would comprehend not only such works as the *Observatory at Benares*, which is well described by Sir ROBERT BARKER, but also such instruments as the *Astrolabe*, mentioned by Mr. BURROW in the Appendix to the second volume of the *Asiatick Researches*; and engravings of such instruments will be necessary to accompany the descriptions.

Though, in the preceding questions, there may be nothing that has escaped the attention of the Society in *Bengal*, yet they will, perhaps, be forgiven to one who feels himself deeply interested in the subject to which they relate, and who would not lose even the feeblest ray of a light, which, without the exertions of the *Asiatick Society*, must perish for ever.

REMARK BY THE PRESIDENT.

WE shall concur, I am persuaded, in giving our publick thanks to Professor PLAYFAIR for the Questions which he has proposed; and in expressing our wish, that his example may be followed by the learned in *Europe*. Concise answers to his queries will be given in my next annual discourse; the subject of which will comprise a general account of *Indian* astronomy and mathematicks. I would long ago have accomplished my *design* (which I never meant as a *promise* to be performed in all events) of examining the heavens in company with an intelligent *Hindu* astronomer, if such a companion could have been found in this province; but, though I offered ample stipends to any *Hindu* astronomer who could name, in *Sanscrit*, all the constellations which I should point out, and to any *Hindu* physician who could bring me all the plants named in *Sanscrit* books, I was assured by the *Brâhmen* whom I had commissioned to search for such instructors, that no *Pandit* in *Bengal* ever pretended to possess the knowledge which I required. Lieut. WILFORD, however, has lately favoured me with a *Sanscrit* work, procured by him at *Benares*, containing the names, figures, and positions of all the asterisms known to ancient or modern *Hindus*, not only in the Zodiack, but in both hemispheres, and almost from
pole

pole to pole. That work I translated with attention, and immediately consigned it to Mr. DAVIS, who, of all men living, is the best qualified to exhibit a copious and accurate History of *Indian Astronomy*.

DISCOURSE THE ELEVENTH; ON THE PHILOSOPHY OF THE ASIATICKS.—*See the Works of Sir William Jones, Vol. I. p. 159.*

THE unfortunate death of Sir *William Jones*, on the 27th of *April*, 1794, having deprived the Society of their Founder and President, a meeting of the Members was convened on the 1st of *May* following, when it was unanimously agreed to appoint a Committee, consisting of Sir *Robert Chambers*, Mr Justice *Hyde*, Colonel *John Murray*, *John Briston*, and *Thomas Graham*, Esquires, to wait on Sir JOHN SHORE, and in the name of the Society, request his acceptance of the office of their President. With this request he, in terms highly flattering to the Society, agreed to comply; and on the 22d of *May*, 1794, took his seat as President, and delivered the following Discourse,

A DISCOURSE DELIVERED AT A MEETING OF THE ASIATICK SOCIETY.—*See the Works of Sir William Jones, Vol. I. p. i.*

A TREATISE ON THE BAROMETER.

By FRANCIS BALFOUR, Esq.

I.

IN a Treatise, published at this place a few weeks ago, on Sol-Lunar Influence in Fevers, I have endeavoured to shew, “ *That all Fevers are liable to certain diurnal and septenary * revolutions; and that these revolutions are uniformly and constantly connected with fixed periods of time.*”

II.

HAVING established this proposition (1.), it was natural to suppose that the power or influence which is capable of producing these very remarkable and interesting revolutions on the human constitution, at certain intervals, did not exert itself without effecting, at the same time, some corresponding periodical change in the state of that element in which we constantly exist; and in which all the operations of life and nature are carried on.

Other necessary avocations having hitherto prevented me from being able to make those experiments myself that are required for deciding on this question, I applied to Mr. FARQUHAR, who, I understood, had paid some attention to this subject; and was favoured with the following very obliging and instructive letter:

To DOCTOR BALFOUR.

DEAR SIR,

“ YOU likewise desire me to give you some account of the regular diurnal variations of the Barometer which take place in this country; and which, I said, I conceived to be peculiar to tropical climates, from the otherwise unaccountable silence of every author whose work I had been able to consult on the subject. The first intimation of this was from Mr. HENRY TRAIL, who informed me that he had observed the Mercury to rise every night till about eleven o’clock, when it became stationary. I immediately repeated his observations, and found that the fact

* That is to say, changes happening after an interval of seven or eight days.

was certain; but that there was likewise another diurnal variation, which had escaped his notice. After numerous observations, at all hours during the day and night, I found that the Mercury is subject to the following variations, with the utmost degree of regularity, throughout the whole year. From six in the morning till between seven and eight, it is stationary; it then rises till nine, sometimes, though rarely, till ten, when it remains stationary till noon; it then descends, and is lowest at three, and continues stationary till eight; when it begins to rise, and continues till eleven, and is then at the same height that it was at nine in the morning.

On relating the above observations to the late Colonel PEARCE, an indefatigable and rigidly accurate observer, and who had devoted much time and attention to Barometrical pursuits, he was surprised that such regular variations of the Mercury should have escaped his observation: but some time after, with great candour, acknowledged the certainty of the fact, and framed an hypothesis to account for it; which you will probably be able to obtain on an application to Captain GRACE.

To me the phenomena appear inexplicable to any hypothesis that I can think of. The periods are evidently connected with the earth's diurnal motion; and, if we had not a satellite, might be easily explained by the atmospheric tides caused by the sun. But when we find that the Barometer is not, in the least observable degree, affected by the moon's passage over the meridian, or by the united action of the sun and moon at the syzygies, we have absolute proof that this cannot be the cause; neither can the expansion of the Mercury, being directly opposite to the phenomena, the greatest degree of heat taking place at three o'clock, when the Mercury is lowest.

With respect to the influence of the moon on the atmosphere, I was perfectly satisfied while in *Beerboom*, that the cold season set in at the syzygies only; and that there was always a considerable increase of cold at every return of them. But at the old powder-works near *Calcutta*, I observed the greatest degree of cold to happen sometimes at the quadratures. Being, however, at that time much engaged in other pursuits, I did not attend to the circumstance of the moon's *absolute distance*, though of the utmost consequence in all calculations of the heights of the tide, to which the variations of the state of the atmosphere, occasioned by the attraction of the sun and moon, must be analogous. And yet this fact, important as it is to every sea-faring person, especially in river-navigations, as well as to ship-builders, for predicting the highest spring-tides, seems to be totally unknown to the generality
of

of these persons; nor is it surprizing, as it is not taken notice of in any treatise on navigation that I have met with. But M. DE LA LANDE (Astronomy, vol. iii. p. 656.) shews, that if the moon's mean force to raise the waters of the ocean be two and a half, her greatest force when *Apogee*, will be three; and her least when *Perigee*, two: a difference sufficient to account for the tides at the quadratures being sometimes nearly as high as those at the syzygies: a circumstance which was ascertained by part of a committee instituted for examining plans for new powder-works at the Old Fort Ghaut; where stakes had been driven, on purpose to find the rise of the tide. M. DE LA LANDE confirms the theory by many observations, made with great accuracy in some of the ports of France (Supplement, vol. iv.); and I can vouch for the fact by numerous measures of the heights of the tide, both at the old and new powder-works. But you may easily satisfy yourself of the fact, by observing the height of a few tides at Champaul Ghaut, when you will find, invariably, that every great parallax of the moon, at the syzygies, is attended with a very high tide and strong bore; and *vica versa*. I have not been able to observe, that the moon's declination, notwithstanding what you may have heard from other quarters, has any perceptible effect on the tides.

I have been the more particular on this subject, as I have heard it made an unanswerable objection to your system, that the first attacks of intermittent fever do happen at the quadratures as well as the syzygies; and that relapses do likewise happen at the quadratures. Now, should you meet with any such cases, the above observations may perhaps tend to reconcile them to your system, &c.

Banky Baza, 12th Feb. 1794.

JOHN FARQUHAR.

III.

Although in this letter Mr. FARQUHAR describes in the Barometer only *three* different diurnal periods of rising and falling, I could not help suspecting that there must likewise be a *fourth*, which had escaped his notice; and that I should be able to discover a periodical falling also in the state of the mercury, between eleven at night and six in the morning, analogous to that which he had observed between eleven at mid-day and six in the evening. Accordingly, by keeping myself awake, and continuing my observations during the night, I have now the satisfaction to be assured that my anticipation of the revolution I expected to discover, was perfectly just.

IV.

With a view of ascertaining the progress of these *four* different revolutions by personal observation, I imposed upon myself the task of observing and recording the changes of the Barometer, as far as I was able, every half-hour, day and night, during the period of one complete lunation.

The result of this undertaking I have now the honour to lay before the Society; and if in matter or form it contains any thing worthy of their attention, or of a place amongst their Researches, it will afford me a degree of satisfaction that will more than reward me for my labour.

I. *Of the Periodical Diurnal Changes of the Barometer.*

THE DETAIL OF FACTS.

V.

THE Detail of Facts is comprehended in the following record of observations made on the Barometer, as regularly as I was able to perform it, every half-hour, both day and night, during the lunation which intervened between the 31st of *March* and the 29th of *April* 1794. To these I have added the state of the *Thermometer* and *Wind*, with the appearance of the sky.

VI.

My observations of the *Barometer* were taken with scrupulous exactness; and although the weighty hand of sleep has more than once deprived me of observations that I was just about to make, and was anxious to record, I have never ventured to assume any probable state of the Mercury as an actual observation.

VII.

With respect to the *Thermometer*, although it was liable to some inaccuracy from my not being able to preserve the apartment in which it was hung, uniformly open or shut, yet, as the variations from this cause were trifling, and never obscured the regular and progressive rise and fall which it observes at different periods of the day, I conceive that my record is sufficiently exact for enabling me to decide, with safety,

safety, that the daily fluctuations which appeared in the Barometer, were *not* connected with the daily vicissitudes of heat and cold.

VIII.

Although the state of the *wind* was not measured by any instrument, but estimated only grossly by the effect which it appeared to produce on the trees and other objects around, still I conceive that I may also venture to determine on this ground, that the diurnal fluctuation of the Mercury was *not* connected with the state of the wind.

In the column appropriated for recording the state of the wind, *Number 1* represents a breeze capable of carrying on a ship two or three miles in the hour; *Number 2*, a breeze capable of carrying on a ship four or five miles; and *Number 3*, a breeze capable of carrying on a ship six, seven, or eight miles.

IX.

Neither are the *appearances of the sky* defined with much precision or minuteness; yet, upon the description that I have given, I think I may pronounce with sufficient confidence, that they did *not* direct or regulate the periodical diurnal fluctuation of the Barometer.

By conceiving the wind, which in the month of *April* is generally from some point in the south, carrying constantly along with it, in the different degrees of velocity I have described (VIII.) different proportions of light and heavy clouds, we may obtain a tolerably just idea of the appearance of the sky at *Calcutta* during that month.

To express these different states, we have employed in the record the terms *clear*, *cloudy*, and *overcast*. When few clouds only appear, or none, which is seldom the case at this season, the sky is said to be *clear*; when the sun or stars shine through a number of clouds, the sky is said to be *cloudy*; and when the sun or stars do not appear at all, the sky is said to be *overcast*.

N. B. As the record of observations from which these negative propositions (VII. VIII. IX.) respecting the *thermometer*, the *state of the wind*, and *appearance of the sky* are inferred, is voluminous, and would necessarily exclude from this volume of the Researches matter that is much more interesting, it has been considered sufficient for the object of this paper, to insert only the opposite abstract, or *Synopsis*, of the observations made on the Barometer.

THE STATEMENT.

XI.

The sum of my observations respecting the four Periodical Diurnal Revolutions of the Barometer which I have described, appears at one view in the preceding Synoptical Arrangement, and when stated precisely in numbers, amounts to this:

- 1st, That on every day of the thirty comprehended in the Record, excepting one *, the Barometer constantly *fell* between ten at night and six in the morning; and that progressively, and without any intermediate rising, excepting in one instance †.
- 2^d, That on every day of the thirty comprehended in the Record, without one exception, the Barometer constantly *rose* between six and ten in the morning; and that progressively, and without any intermediate falling, excepting in two instances ‡, §.
- 3^d, That on every day of the thirty comprehended in the Record, without one exception, the Barometer constantly *fell* between ten in the morning and six in the evening; and that progressively, and without any intermediate rising in any instance.
- 4th, That on every day of the thirty comprehended in the Record, excepting two ||, **, the Barometer constantly *rose* between six and ten in the evening; and that progressively, and without any intermediate falling in any instance.

THE INFERENCE.

XII.

From the preceding statement of the coincidences observed in these four portions of the day, it appears that we may reasonably infer the following propositions, limited to *Calcutta* in the month of *April* 1794.

- 1st, That, in the interval between ten at night and six in the morning, there existed a *prevailing tendency* in the Mercury to *fall*.

* Between the 20th and 21st—*Vide* Synopsis.

† Between the 22d and 23d — ditto.

‡ On the 11th - - - ditto.

§ On the 23d — *Vide* Synopsis.

|| On the 15th — ditto.

** On the 20th — ditto.

2^d, That,

2d, That, in the interval between six and ten in the morning, there existed a *prevailing tendency* in the Mercury to *rise*.

3d, That, in the interval between ten in the morning and six in the evening, there existed a *prevailing tendency* in the Mercury to *fall*.

4th, That, in the interval between six and ten in the evening, there existed a *prevailing tendency* in the Mercury to *rise*.

These different prevailing tendencies to rise and fall periodically at certain times of the day and night, necessarily imply a proportionate corresponding cause sufficient to produce them. But here we stop, and venture to proceed no farther than to say, with Mr. FARQUHAR, that they seem to be connected with the diurnal revolutions of the planet which we inhabit.

XIII.

By an attentive examination of the Synopsis, it will appear that the general characters of the tendencies which prevail at the different periods we have described, are liable, within their respective limits, to several remarkable *variations*, viz.

1. With regard to *the time of beginning* to rise or fall.
2. With regard to *the time of ceasing* to rise or fall.
3. With regard to *the steps or degrees* by which the Mercury rises or falls.
4. With regard to the *limits or extremes* to which it rises or falls.

Being under the necessity of acknowledging our ignorance of the cause which produces these *prevailing tendencies themselves*, we can of course have no adequate idea or conception in theory of the different circumstances that are capable of producing the different *variations* which appear in their general character; and our observations being much too limited to establish, concerning them, any thing like practical rules, we must remain contented for the present with pointing them out as questions which want investigation: expressing however a strong suspicion that they are not unconnected with the relative positions of the Moon, and the other planets.

THE APPLICATION.

XIV.

At the time of digesting the ideas which I have delivered upon this subject, being possessed of no information but that which was communicated in Mr. FARQUHAR's letter,

letter, and what I obtained afterwards from my own observations, I did not conceive that I was authorized to extend the propositions which I have advanced (XII.) respecting these tendencies, beyond the limits of *Calcutta*. By a note, however, which is just now pointed out to me in Dr. MOSELEY's very ingenious Treatise on Tropical Diseases*, I have the satisfaction to find that the very same tendencies have been observed to prevail on the opposite side of the globe. We may therefore now venture to allow them a more extensive range; and it will, no doubt, be considered as some importance to establish in certain latitudes† the existence of a law in nature by which the Mercury of the Barometer, let the standing weight and pressure of the atmosphere be what it may, is liable to the effects of a constant and regular periodical diurnal fluctuation; for it will then follow *that* the power of each succeeding hour to raise or sink it, is liable to differ from that which went before; *that* the height of the Mercury, therefore, taken only at two or three stated hours of the day, cannot with propriety be assumed to represent or form a just estimate of the whole twenty-four; *that* calculations proceeding hitherto on such partial grounds, must necessarily include error and require adjustment, and *that* in future, wherever this law extends, no correct philosophical investigation connected with the nature of the atmosphere, can be carried on without giving it a place‡; and no *just prognostic* formed of the weather without distinguishing those regular and constant changes from such as are only occasional and temporary.

* The Note referred to in Dr. MOSELEY's Treatise is this:—"It has been observed in these and more equatorial regions, that though the barometer is useless in indicating the variations of the weather, it exhibits a phenomenon not correctly ascertained in temperate climates; which is that the Mercury has two diurnal motions of ascent and descent, of nearly a line corresponding with the course of the sun; ascending as the sun approaches the zenith and nadir, and descending as the sun deviates from these points. It remains stationary at its lowest and highest degrees for some hours."

† As far as I can judge from the following extract from Father COTTE's Memoir on the prevailing Winds, &c. &c. which I have just met with in the *Edinburgh Magazine* for March 1792, there seems to be great reason to believe, that similar fluctuations take place in the Mercury, in the different latitudes of *Europe*; and that they are not entirely confined to the regions under the equator.

"The Mercury is generally a little lower about two o'clock in the afternoon than at any other time of the day; and it is highest towards eight o'clock at night. I would compare this fact without pretending to draw any consequences from it, with the phenomenon of the magnetic needle, the greatest variation of which from north to wards west takes place about two or three in the afternoon, and the least about eight o'clock in the morning."—Vide the *Edinburgh Magazine* for March 1792, page 211. par. 6.

‡ A mean, extracted from means obtained from the extremes of these different diurnal fluctuations, will give the mean weight of the atmosphere much more correctly than the common process.

WITH respect to Medicine, this law is a principle entirely new; and it has now become a matter of real consequence, to ascertain in what respects it co-operates with the power of the sun and moon in producing and regulating the paroxysms of fevers. From the striking coincidence of *these tendencies* with the periods at which the paroxysms of fevers generally attack and remit, and from their superior prevalence in tropical climates where the paroxysms of fever are also most prevalent, "*it seems to be highly probable that they may have a considerable share in constituting that power which shews itself in so remarkable a manner in this country, and which we have denominated Sol-Lunar Influence.*"

II. Of the Periodical Septenary Changes of the Barometer.

XV.

RESPECTING periodical septenary changes in the state of the Barometer, the only information I have been able to obtain, is extracted from an abridged Exposition of the System of Mr. TOALDO upon the probability of the change of weather by the lunar points taken from the *Journal des Sciences Utiles*, and published in the *Calcutta Magazine* for July and August 1793. Mr. TOALDO, it appears, in order to ascertain whether the moon had any influence on the Mercury, collected a journal of the Barometer kept for several years, from which he discovered that the Barometer was six-tenths of a line higher at the times of the quadratures than at the syzygies.

If this journal was kept correctly on a proper plan, periodical septenary changes in the Barometer connected with the revolutions of the moon, are established of course. But if it was kept in the ordinary way of assuming two or three observations taken in the course of the day, to serve as a standard or rule for estimating the state of the whole twenty-four, it is evidently *liable* to errors which render the calculation precarious and inconclusive for the reasons already explained, which however had not occurred to me at the time of writing my last Treatise on Sol-Lunar Influence.

That the Barometer will be differently affected at the springs and neaps, is an anticipation which has in its favour the strongest probability that analogy can afford. Yet, upon a review of the observations collected during the springs and neaps of the lunation which I have observed, I cannot say that, when arranged as they stand in the Synopsis, in coincidence with their respective periods, they exhibit a difference

difference of character to establish this conclusion. We therefore leave it to the decision of a far more extensive experience, conducting its observations on a plan similar to that which we have exemplified in this Treatise.

In looking over Dr. MOSELEY's Treatise on this occasion, I am sorry to discover that trusting too much to memory, in referring to his work in my last publication, I have given a very imperfect account of what he has communicated on the subject of Sol-Lunar Influence. But when he considers that by my inaccuracy I have deprived myself of the weight of his authority in supporting a proposition I was anxious to establish, he will be inclined to ascribe it to the cause I have stated. Dr. MOSELEY's observations are contained in the *Conclusion* to his Treatise, between page 550 and 556; they confirm the power of Sol-Lunar Influence in Europe in a very unequivocal manner, and merit the attention of those who wish for information on the subject.—For the note to which this remark refers, vide page 714.

ON THE DUTIES OF A FAITHFUL HINDU WIDOW.

By HENRY COLEBROOKE, Esq.

WHILE the light which the labours of the *Asiatic Society* have thrown on the sciences and religion of the *Hindus*, has drawn the attention of the literary world to that subject, the hint thrown out by the President for rejecting the authority of every publication preceding the translation of the *Gîtâ*, does not appear to have made sufficient impression. Several late compilations in *Europe* betray great want of judgment in the selection of authorities; and their motley dress of true and false colours tends to perpetuate error; for this reason it seems necessary on every topic, to revert to original authorities for the purpose of cancelling error or verifying facts already published; and this object will no way be more readily attained than by the communication of detached essays on each topic, as it may present itself to the Orientalist in the progress of his researches.

From this or any other motive for indulgence, should the following authorities from *Sanscrit* books be thought worthy of a place in the next volume of the Society's Transactions, I shall be rewarded for the pains taken in collecting them.

“ Having first bathed, the widow, dressed in two clean garments, and holding some
 “ *cúsa* grass, sips water from the palm of her hand. Bearing *cúsa* and *tila* * on her
 “ hand, she looks towards the east or north while the *Bráhma* utters the mystic

* *Sesamum*.

“ word

“ word *Om*. Bowing to *Nerayana*, she next declares *: “ On this month, so named
 “ in such a *Pacsha*, on such a *ti’bi*, I (naming herself and her † family) that I
 “ may meet *ARUNDHATI* ‡ and reside in *Swarga*; that the years of my stay may be
 “ numerous as the hairs on the human body; that I may enjoy with my husband the
 “ felicity of heaven, and sanctify my paternal and maternal progenitors, and the an-
 “ cestry of my husband’s father; that lauded by the *Apsarases*, I may be happy
 “ with my lord, through the reigns of fourteen *INDRAS*; that expiation be made
 “ for my husband’s offences, whether he has killed a *Brábhmana*, broken the ties of
 “ gratitude, or murdered his friend, thus I ascend my husband’s burning pile. I
 “ call on you, ye guardians of the eight regions of the world! Sun and Moon!
 “ Air, Fire, Æther §, Earth, and Water! My own soul! *Yama*! Day, Night, and
 “ Twilight! And thou, Conscience, bear witness: I follow my husband’s corpse
 “ on the funeral pile ||.”

Having repeated the *Sancaipa*, she walks thrice round the pile; and the *Bráh-*
 “ *mana* utters the following *Mantras*:

“ Om! Let these women, not to be widowed good wives, adorned with colly-
 rium, holding clarified butter, consign themselves to the fire. Immortal, not child-
 less, nor husbandless, excellent, let them pass into fire, whose original element is
 water.

From the *Rigvéda*.

“ Om! Let these wives, pure, beautiful, commit themselves to the fire, with
 “ their husband’s corps.

A Pauránica Mantra.

“ With this benediction, and uttering the mystic *Namó Namah*, she ascends the
 “ flaming pile.”

While the prescribed ceremonies are performed by the widow, the son, or other

* This declaration is called the *Sancaipa*.

† *Gótra*, the family or race. Four great families of *Brábhmanas* are now extant, and have branched into many dif-
 finct races. Since the memorable massacre of the *Cshatriyàs*, by *Parasu Ràma*, the *Cshatriyàs* describe themselves
 from the same *Gótras* as the *Brábhmanas*.

‡ Wife of *VASISHT’HA*.

§ *Acàsa*.

|| In several publications the woman has been described as placing herself on the pile before it be lighted; but the
 ritual quoted is conformable to the text of the *Bhàgavata*.

“ When the corpse is about to be consumed in the *Sahótaja* *, the faithful wife who stood without, rushes on the
 fire.”

NAREDA to YUDISHT’HIRA.

* Cabin of grafts or leaves, sometimes erected on the funeral pile. “ The shed on the funeral pile of a *MUNI* is called *PARN’O’TAJA* and
SAHO’TAJA.” See the vocabulary entitled *HA’RA’BALI*.

near kinsman, of the deceased, applies the first torch, with the forms directed for funeral rites in the *Grihya* *; by which his tribe is governed.

The *Sankalpa* is evidently formed on the words of ANGIRAS';

"The wife who commits herself to the flames with her husband's corpse, shall equal ARUNDHATI', and reside in *Swarga*;

"Accompanying her husband, she shall reside so long in *Swarga* as are the thirty-five millions of hairs on the human body.

"As the snake-catcher forcibly drags the serpent from his earth, so, bearing her husband from hell, with him she shall enjoy heavenly bliss.

"Dying with her husband, she sanctifies her maternal and paternal ancestors; and the ancestry of him to whom she gave her virginity.

"Such a wife, adoring her husband, in celestial felicity with him, greatest, most admired †, with him shall enjoy the delights of heaven while fourteen INDRAS reign.

"Though her husband had killed a *Bráhmāna* ‡, broken the ties of gratitude, or murdered his friend, she expiates the crime." ANGIRAS.

The *Mantras* are adopted on the authority of the BRAHME *Purana*.

"While the pile is preparing, tell the faithful wife of the greatest duty of woman, *she is loyal and pure who burns herself with her husband's corpse*. Hearing this, fortified (in her resolution) and full of affection, she completes the PITRI'MHEDA *Yaga* § and ascends to *Swarga*." BRAHME *Purana*.

It is held to be the duty of a widow to burn herself with her husband's corpse; but she has the alternative,

"On the death of her husband, to live as *Bráhmachàrī*, or commit herself to the flames." VISHNU.

* Extracts or compilations from the sacred books, containing the particular forms for religious ceremonies, to be observed by the race or family for whom that portion of the sacred writings has been adopted, which composes their *Grihya*. We learn from the *Bhāgavata* that VYA'SA divided the *Vēda* into four (*Rieb*, *Yajusk*, *Sāman*, and *At'barvan*) or five, including the *Itihāsas* or other *Puranas* as one *Vēda*. PAILA accepted the *Rigvēda*; JAIMEINI and CAVI, or SUCRA, the *Sāmavēda*; BAISAMPAYANA learned the *Rajurvēda*; SAMUNTU, DARUNA, and others of the family of ANGIRAS, the *At'barvavēda*. "My father (SUC'HA, son of VYA'SA speaks) selected the *Itihāsas* and *Purānas*; then the several *Rishis* chose the "*Vēdas* variously (parts of each). Their pupils, the successors of their pupils, and the pupils of these, became followers of particular *Sāc'ha's*."

† The word in the text is expounded "lauded by the choirs of heaven, *Gandharvas*," &c.

‡ The commentators are at the pains of shewing that this expiation must refer to a crime committed in a former existence; for funeral rites are refused to the murderer of a *Bráhmāna*.

§ Act of burning herself with her husband.

The austerity intended consists in chastity, and in acts of piety and mortification.

“ The use of *Tambûla*, dress, and feeding off vessels of tutenague is forbidden to the *Yati* *, the *Brahmachârî*, and the widow. PRACHE'TAS.

“ The widow shall never exceed one meal a-day, nor sleep on a bed: if she do so, her husband falls from *Swarga*.

“ She shall eat no other than simple food, and † shall daily offer the *tarpana* of *cûsa*, *tila*, and water ‡.

“ In *Vaisâc'ba*, *Cârtica*, and *Mâgha* she shall exceed the usual duties of ablution, alms, and pilgrimage, and often use the name of God in prayer.”

The *Smṛiti*.

After undertaking the duty of a *Satî*, should the widow recede, she incurs the penalties of defilement.

“ If the woman, regretting life, recede from the pile, she is defiled; but may be purified by observing the fast called *Prâjâpatya* §.” APASTAMBA.

Though an alternative be allowed, the *Hindu* legislators have shown themselves disposed to encourage widows to burn themselves with their husband's corpse.

HA'RÎTA thus defines a loyal wife: “ She, whose sympathy feels the pains and joys of her husband; who mourns and pines in his absence, and dies when he dies, is a good and loyal wife. Hârîta.

“ Always revere a loyal wife, as you venerate the *Dévatâs*; for, by her virtues, the prince's empire may extend over the three worlds.”

MATSYA *Purâna*.

“ Though the husband died unhappy by the disobedience of his wife: if from motives of love, disgust of the world, fear of living unprotected, or sorrow, she commit herself to the flames, she is entitled to veneration.”

Mahâ Bhârata.

Obsequies for suicides are forbidden; but the *Rigvêda* expressly declares, “ that the loyal wife who burns herself, shall not be deemed a suicide. When a

* *Sannyâsi*.

† If she has no male descendants. See *Madana Parijata*.

‡ Oblations for the manes of ancestors to the third degree, though not exclusively; for the prayer includes a general petition for remoter ancestors. Yet daily oblations (*Vaisvâdêva*) are separately offered for ancestors beyond the third degree.

§ It extends to twelve days; the first three, a spare meal may be taken once in each day; the next three, once in each night; the succeeding three days, nothing may be eaten but what is given unsolicited; and the last three days are a rigid fast.

“ mourning

"mourning of three days has been completed, the *Srāddha* is to be performed*.

"This appears from the prayer for the occasion, directed in the *Rigveda*."

Regularly the chief mourner for the husband and for the wife, would, in many cases, be distinct persons: but the *BHAVISHYA Purāna* provides, *that*

"When the widow consigns herself to the same pile with the corpse of the deceased, whoever performs the *Criyā* for her husband shall perform it for her."

"As to the ceremonies from the lighting of the funeral pile to the *Pinda*; whoever lights the pile, shall also offer the *Pinda*." VA'YU Purāna.

In certain circumstances the widow is disqualified for this act of a *Satī*.

"She who has an infant child, or is pregnant, or whose pregnancy is doubtful, or who is unclean, may not, O prince! ascend the funeral pile.

"So said NA'REDA to the mother of SAGARA."

"The mother of an infant shall not relinquish the care of her child to ascend the pile; nor shall one who is unclean (from a periodical cause) or whose time for purification after child-birth is not passed, nor shall one who is pregnant, commit herself to the flames†. But the mother of an infant may, if the care of the child can be otherwise provided." VRIHASPATI.

In the event of a *Brāhmana* dying in a distant country, his widow is not permitted to burn herself.

"A *Viprā* or *Brāhmana* may not ascend a second pile." GO'TAMA.

"But with other casts, this proof of fidelity is not precluded by the remote decease of the husband, and is called *Anugamana*.

"The widow, on the news of her husband's dying in a distant country, should expeditiously burn herself: so shall she obtain perfection." VYA'SA.

"Should the husband die on a journey, holding his *sandals* to her breast, let her pass into the flames." BRAHME Purāna.

The expression is not understood of *sandals* exclusively: for thus USANAS or SUCRA.

"Except a *Viprā*, the widow may take any thing that belonged to her husband, and ascend the pile.

* The shortness of the mourning is honourable; the longest mourning is for the lowest tribe.

† It has been erroneously asserted, that a wife, pregnant at the time of her husband's death, may burn herself after delivery. *Hindu* authorities positively contradict it. In addition to the text it may be remarked, that it is a maxim, "What was prevented in its season, may not afterwards be resumed."

" But

“ But a *Viprā* may not ascend a second pile; this practice belongs to other tribes.”

SUCRA.

In two of the excepted cases, a latitude is allowed for a widow desirous of offering this token of loyalty, by postponing the obsequies of the deceased: for *VYA'SA* directs that, “ If the loyal wife be distant less than the journey of a day, and desire “ to die with her husband, his corpse shall not be burnt until she arrive. And “ the *Bhaviṣya Purāṇa* permits that the corpse be kept one night, if the third day “ of her uncleanness had expired when her husband died.”

With respect to a circumstance of time *, which might on some occasions be objected, the commentators obviate the difficulty, by arguing from several texts, “ that to die with or after her husband, is for a widow *Naimittica* †, and *Cāmya* ‡, “ and consequently allowable in the intercalary month;” for *DACSHA* teaches, that “ whenever an act both *Naimittica* and *Cāmya* is in hand, it is then to be performed without consulting season.” They are at the trouble of removing another difficulty:

“ *DHRITARA'SHTRA*, in the state of *Samadhi*, quitted his terrestrial form to “ proceed to the *MUCTI*, or *beatitude*, which awaited him. When the leaves “ and wood were lighted to consume the corpse, his wife *GA'NDHA'RI'* was seen “ to pass into the flames. Now also, a husband dying at *Cāsi* and attaining *Muṭi*, “ it becomes his widow to follow the corpse in the flames.”

It were superfluous to pursue commentators through all their frivolous distinctions and laborious illustrations on latent difficulties.

All the ceremonies essential to this awful rite are included in the instructions already quoted. But many practices have been introduced, though not sanctioned by any ritual. A widow who declares her resolution of burning herself with the corpse, is required to give a token of her fortitude: and it is acknowledged, that one who receded after the ceremony commenced, would be compelled by her relations to complete the sacrifice. This may explain circumstances described by some who have witnessed the melancholy scene.

Other ceremonies noticed in the relations of persons who have been present on such occasions, are directed in several rituals:

“ Adorned with all jewels, decked with *minium* and other customary ornaments,

* Occasional observances are omitted on intercalary days.

† Eventual; incumbent when a certain event happens.

‡ Optional; done for its reward.

“ with

“ with the box of *minium* in her hand, having made *pújá*, or adoration to the *Dé-vatás*, thus reflecting that *this life is nought : my lord and master to me was all,—*
 “ she walks round the burning pile : she bestows jewels on the *Brahmanas*, com-
 “ forts her relations, and shows her friends the attentions of civility ; while call-
 “ ing the Sun and elements to witness, she distributes *minium* at pleasure ; and
 “ having repeated the *Sancalpa*, proceeds into the flames : there embracing the
 “ corpse, she abandons herself to the fire, calling *Satya ! Satya ! Satya !*”

The bye-standers throw on butter and wood : for this, they are taught, that they acquire merit exceeding ten million fold, the merit of an *Aśwamedha*, or other great sacrifice. Even those who join the procession from the house of the deceased to the funeral pile, for every step are rewarded as for an *Aśwamedha*. Such *indulgences* are promised by grave authors : they are quoted in this place only as they seem to authorize an inference, that happily the martyrs of this superstition have never been numerous. It is certain that the instances of the widow's sacrifices are now rare : on this it is only necessary to appeal to the recollection of every person residing in *India*, how few instances have actually occurred within his knowledge. And, had they ever been frequent, superstition would hardly have promised its indulgences to spectators.

ON THE TRACES OF THE HINDU LANGUAGE AND LITERATURE, EXTANT AMONG THE MALAYS.

By WILLIAM MARSDEN, ESQ.

THE *Sanscrit*, or ancient language of the *Hindus*, is a subject so interesting in itself, that every discovery which contributes to throw light upon its history or to mark its extent, carries with it a degree of importance. The proofs of its influence in the northern countries of *Aſſam*, *Nepal*, *Booten*, and *Tibet*, as well as in the southern parts of the peninsula of *India*, are to be found in the works of the Missionaries and the Researches of this Society, but the progress it made in early times, amongst the inhabitants of the eastern islands and countries possessed by the *Malays*, has not, I believe, been pointed out by any writer. My acquaintance with

with the language of the latter people, together with some attention paid to the dialects of *India* in general, have enabled me to observe, that the *Malayan* is indebted to the *Sanſcrit* for a conſiderable number of its terms. I have alſo ſatisſied myſelf, that the intercourſe by which this communication was affected, muſt have taken place in times anterior, probably by many centuries, to the converſion of theſe people to the *Mahometan* religion. The language, it is true, abounds at preſent with *Arabic* words, which their writers affect to introduce, becauſe this diſplay of literary ſkill is, at the ſame time a proof of their religious knowledge; but they are generally legal or metaphyſical terms, borrowed from the *Koran* and its commentaries; are never expreſſive of ſimple ideas, have not been incorporated into the language (a few excepted) and are rarely made uſe of in converſation. The *Hindu* words, on the contrary, are ſuch as the progreſs of civilization muſt ſoon have rendered neceſſary, being frequently expreſſive of the feelings of the mind, or denoting thoſe ordinary modes of thought which reſult from the ſocial habits of mankind, or from the evils that tend to interrupt them. It is not however to be underſtood, that the affinity between theſe languages is radical, or that the names for the common objects of ſenſe are borrowed from the *Sanſcrit*. The *Malayan* is a branch or dialect of the widely extended language prevailing throughout the iſlands of the *Archipelago*, to which it gives name *, and thoſe of the *South Sea*; comprehending between *Madagaſcar* on the one ſide, and *Eaſter Iſland* on the other, both incluſive, the ſpace of full two hundred degrees of longitude. This conſideration alone is ſufficient to give it claim to the higheſt degree of antiquity, and to originality, as far as that term can be applied. The various dialects of this ſpeech, though they have a wonderful accordance in many eſſential properties, have experienced thoſe changes which ſeparation, time, and accident produce, and in reſpect to the purpoſes of intercourſe, may be claſſed into ſeveral languages, differing conſiderably from each other. The marks of cultivation by which the *Malayan* is diſtinguiſhed from his ruder neighbours, are to be attributed, in my opinion, to the effects of an early connexion that muſt have ſubſiſted between the inhabitants of this eaſtern peninſula and thoſe of the continent of *India*; but what the nature and circumſtances of this connexion may have been, it is not eaſy to determine. A ſpirit of foreign conqueſt, and ſtill more, a zeal for the propagation of their religious tenets, appear incompatible with the genius of the *Hindu* ſyſtem, except-

* The *Malay-Archipelago* may be underſtood to comprehend the *Sunda*, *Philippine*, and *Molucca* iſlands, in the maritime parts of which, the *Malayan* is uſed as a *lingua franca*.

ing amongst the disciples of BHOOD ; but I have never discovered in the *Malayan* customs or opinions any traces of the peculiar institutions of that extraordinary sect.

A commercial intercourse has always subsisted between the manufacturing countries of *India* and the marts for the produce of the *Spice-islands*, such as *Jobor*, *Singapoora*, and *Malacca* ; and when the *Portuguese*, at the commencement of the sixteenth century, first visited these places, they mention with surprize the concourse of foreign vessels assembled there. But independently of other objections that might be raised to the probability of these traders having polished the language of the people whose ports they frequented, or having imparted to them their national literature, it is to be observed that by much the greater proportion of the ships belonging to native merchants, which now enter the straits of *Malacca*, come from the coast of *Coromandel*, and consequently are navigated by persons who speak the languages prevailing in that part ; whereas it is evident, that, from the *Telinga*, or the *Tamool*, the *Malayan* has not received any portion of its improvement, but from the genuine *Hindurree* of the northern provinces, prior to its debasement by the mixture of *Arabic* nouns, and the abuse of verbal auxiliaries. If the communication must necessarily be supposed to have its origin in commerce, I should be inclined to consider the people of *Guzerat*, notwithstanding their distance, as the instructors of the *Malays*. Their resort to *Malacca* is particularly noticed by DE BARROS, and other authentic writers ; and it is well known that the *Hindu* language has been preserved with more purity in that, than in any other maritime province of *India*.

The nature of the affinity suggested, will sufficiently appear to those who are conversant with the *Hindu* dialects, by the following examples of *Sanscrit* words, which are at the same time so familiar to the *Malays*, and so thoroughly incorporated into their vernacular tongue, that their foreign origin is never suspected, although the terms adopted from the *Arabs* can, with very few exceptions, be immediately pointed out by the most ordinary scholar. It is true that he is assisted in this discrimination by the peculiarities of the *Arabic* orthography ; for the *Malays*, as well as the *Persians* and other people, who, in consequence of their conversion to the faith of the *Koran*, employ this alphabet in their writings, do yet reject the use of certain letters, either as superfluous, or as not suited to the smoothness of their own sounds, and which therefore appear only in words purely *Arabic*. The *Hindurree* words, on the contrary, being divested of their proper dress, and clothed, in common with those originally *Malayan*, in the adopted *Arabic*

Arabic character (with certain judicious modifications) want the same token of their origin, and are more assimilated with the rest of the language.

In this short list of words taken, with little pains in the selection, from a *Malayan* dictionary, the departure from the *Hinduvée* is scarcely more than may arise from a different habit of spelling them in our letters, unless where it consists in a slight variation of the sense, or of the part of speech.

<i>Sooka.</i> Fond, pleased.	<i>Basa.</i> Language.	<i>Jaga.</i> To watch.
<i>Sooka chetha.</i> Pleasure, joy.	<i>Bechara.</i> Advice, counsel, judicial proceeding.	<i>Pootree.</i> Princess.
<i>Dooka.</i> Sad.	<i>Beejee.</i> Seed.	<i>Rata.</i> Chariot.
<i>Bagee.</i> To divide.	<i>Boodee.</i> Wisdom, understanding.	<i>Pernama.</i> Full moon.
<i>Bangsa.</i> Race, family.	<i>Loba.</i> Covetous.	<i>Charee.</i> To seek.

An inspection of the characters used by the natives of the islands, who have not adopted the *Malayan* or *Arabic* mode of writing, will shew that in the arrangement of their letters they have taken the *Hindu* for their guide, and have even preserved the rhythmus terminated by a *nasal*; which so peculiarly distinguishes this from every other system. The aspirated letters not being required for expressing the sounds of these languages, are omitted, and each division of the series consists therefore of three, instead of five. In the *Rejang* alphabet the order is as follows: *Ka, ga, nga; Ta, da, na; Pa, ba, ma; Cha, ja, nia; &c.* (see *History of Sumatra*, plate.) In the *Sanscrit*, I need scarcely to observe, the series of consonants begins thus, *Ka, k'ba, ga, g'ba, nga; Cha, ch'ba, ja, j'ba, gnya; Ta, t'ba, da, d'ba, na, &c.* If other proofs were wanting of the influence of *Hindu* intercourse in these parts, such conformity alone, in a matter so arbitrary, and which exists equally in other obscure dialects, and extends even to the island of *Celebes*, would be sufficient to establish it. The languages of these islanders have not, however, been enriched by an accession of *Hindu* words in any degree proportioned to the *Malayan*, which uses the *Arabic* alphabet; but the probability is strong, that the inhabitants of the *Malay* peninsula were in possession of an alphabet on the same model, and were even skilled in composition, before the *Mahometans* introduced their learning and character among them.

But the circumstance which has more immediately struck my attention, and given occasion to these remarks, is that of my having met with frequent allusion in their writings, to the most celebrated works of the *Hindu* mythological poets, especially the *Mahabharat* and the *Ramayan*. A manuscript now lying before me, which is a species of romance, exhibits in almost every page the marks of the au-

thor's acquaintance with *Hindu* literature and manners. It contains the adventures of two princes, who were sent by the king their father, to obtain for him the possession of an extraordinary self-performing instrument of music, whose enchanting air he had heard in a dream. However flimsy this foundation, and incoherent the parts of its superstructure, it gives scope to the display of a lively and fertile imagination, much delicate imagery, and pathetic expression of sentiment. The following passages allude, unequivocally, to well-known personages in the *Poorans*: *Terlalloo baeck segala roopa'nia maba-indah separtee pandooa leema*; "surpassing good" was their whole appearance; most admirable, like unto the five *Pandoos*." Again: *Lakoo'nia meng-amok eetoo separtee pandooa leema tatkala eea meng-amok dedalam rayet koorao*; "the manner in which they fought was like that of the five *Pandoos*" when they rushed into the ranks of the *Kooros*." These can be no other than the renowned favourites of KRISHNA, whose brilliant actions and personal accomplishments are the theme of immortal song. The machinery of the *Ramayan* is interwoven with the story; and this circumstance tends to increase my regret that we possess no translation, even in abstract, of that much-admired poem. The *Malayan* princes are, like RAMA, attended in their wars by apes of extraordinary endowments, who fight with more than human prowess, and overcome the *Raksasa*, or hobgoblins, who serve under the banners of the adversary. One of the former, whose talents as an ambassador are the subject of panegyric, is said to resemble that diplomatic monkey who was sent by *Sree Rama* to the King of *Langkaporee*. The mixture of qualities and actions gravely attributed to them in their double capacity of monkeys and heroes, produces a very ludicrous and amusing effect. Though their ideas are rational, their manners and propensities are faithful to nature. Mention is also made of *Bisno dewa*; of the mountain *Maba-meroo*; of the blue lotos growing in the pool *Mandoo ratna*; of a lion possessing supernatural powers, *Sing-asaktee*, and elsewhere *Sing-a-rajoon*, who shot arrows at *Mabaraja KARNA*. Some of these latter names I do not recollect to have met with in the notices we have of the *Hindu* mythology.

These similes and allusions must refer, as in all poetry, to stories with which the readers were presumed to be well acquainted, and seem to imply, that translations of the works were formerly in the hands of the *Malays*. I do not know that such remain amongst them at this day: but my ignorance is no proof of the contrary; for at the time when I had opportunities of making the enquiry, I was uninformed as to the existence of the originals, and the passages above quoted were of course unintelligible to me. They must be sought for in the peninsula of

Malacca,

Malacca, or amongst the *Menangkabon* people in *Sumatra*. A spirit of investigation is now gone forth, and under the influence of the *Asiatic Society*, and from the example of its President, we may confidently hope that no region of oriental literature will be left unexplored.

Since the foregoing Paper was written, and communicated to a few friends, I have seen a copy of the third volume of the *Asiatic Researches* (just received from Calcutta) and observe that the connexion between the *Malayan* and the *Sanscrit* has not escaped the notice of the President, whose learned and elegant ANNIVERSARY DISCOURSE points it out in a clear and decided manner. The sanction of his authority to my opinion fully reconciles me to the anticipation of a supposed discovery.

A CATALOGUE OF INDIAN PLANTS. See the Works of Sir William Jones, Vol. II. p. 39.

BOTANICAL OBSERVATIONS ON SELECT INDIAN PLANTS. See the Works of Sir William Jones, Vol. II. p. 47.

A DESCRIPTION OF THE CUTTUB MINAR.

By Ensign JAMES T. BLUNT, of the Engineers.

THE base of the *Cuttub Minar*, is a polygon of twenty-seven sides, and rises upon it in a circular form; the diminution of the column is in a good proportion. I do not mean to infer, that the architect has followed any established rule, for it does not appear, that the ancients, in any country, were tied down to rule; for although we see extremely different instances of the diminution in their works, in general they all look well.

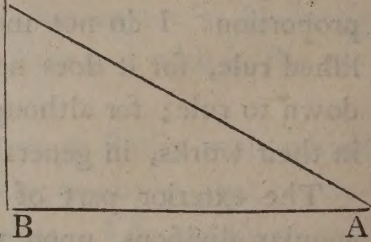
The exterior part of the *Minar* is fluted into twenty-seven semicircular and angular divisions, upon which is written a good deal of a very ancient *Arabick* character; it is supposed to contain passages from the *Koran*; there are four balconies

conies in the height of the building, the first is at the height of ninety feet, the second at 140, the third at 180, and the fourth at 203 feet; to the height of 180 feet, the pillar is built of an exceeding fine red Granite, and the fluting there ends. The balconies are supported upon large stone brackets, and have had small battlements erected upon them, as a preventive from people who may choose to go into them from falling, and serve likewise, as an ornamental purpose to the building; from the height of 203 feet, excepting a few inconsiderable ornaments, it rises with an even surface and circular form, built of very fine white marble; upon which the date when the *Minar* was completed is said to be written. It was a matter of much disappointment, that I could not approach sufficiently near to the date to copy it; for I found it was situated at such a height, as to put it totally out of my power; and what adds to the difficulty is, that there is not a bamboo, or wood of any kind produced in that part of the country, calculated to raise a scaffolding with.

An irregular spiral stair-case, leads from the bottom to the summit of the *Minar*, which is crowned with a majestic Cupola of red Granite; there are many openings during the ascent, for the admission of light and air; at each balcony, an opening to allow of people walking into them, but I found the battlements in many parts entirely ruined, and those that were standing in such a decayed state, as to render it a matter of some danger to venture out from the stair-case.

The entire height of the *Cuttub Minar* is 242 feet and six inches: I ascertained it by measuring a direct line from its base; and, as it may be a matter of some satisfaction to see that it is done with precision, I annex the Trigonometrical calculation.

The base A B being measured in a right line from the bottom of the *Minar*, was found to be 402 feet and six inches; twenty-four feet C one inch, the semi-diameter of the Base of the *Minar*, being added to it, gave a line of 426 feet and seven inches from the centre of the Pillar. At the extremity of the Base A, a Theodolite was placed, and previously being carefully adjusted by putting the line of collimation in the Telescope, parallel to the plane of the Horizon, B



the angle B A C was observed to be twenty-nine degrees, thirty-nine minutes; thence the height of the *Cuttub Minar*, was found to be 242 feet and nearly six inches.

By Plane Trigonometry.

The Base A B giving 426 feet, seven inches, say 426,5, the angle B A C is given $29^{\circ}, 39'$, the angle B A C is a right one; the sum of the angles in all triangles being equal to two right angles, or 180 degrees, by deducting the sum of the two angles C A B and A B C, from the sum of three angles in the triangle A B C, the angle A C B will be found

$$C A B = 29. 39$$

$$A B C = 90. —$$

$$180 - 119. 39 = 60. 21 = \text{Angle A C B.}$$

Then as the angle A C B is to the side A B, so is the angle C A B to the side C B, or height of the *Minar*.

Log. S. of ACB	Log. of AB	Log. S. of CAB	Log. of CB
9,93905	: 62942	:: 9,69434	: 242,5
		+ 2,62942	

$$12,32376$$

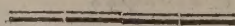
$$- 9,93905 \text{ feet.}$$

$$2,38471 = 242,5$$

The *Cuttub Minar* is situated about nine miles bearing S. 16 W. from the *Jumma Musjid*, that was erected by the Emperor SHAW JEHAN in the present city of *Delhi*, and appears to have been designed for a *Minaret* to a most stupendous mosque, which never was compleated; a considerable part of the second and corresponding *Minaret* is to be seen, and many other parts of this intended immense building, particularly of the arches. The mosque seems to have been abandoned in this unfinished state, from causes at this time entirely unknown; perhaps the original designer of the fabrick found human life too short to see it accomplished during his existence. It may not appear a matter of much surprize that the wealth of one man should be found inadequate to so arduous an undertaking, however opulent and exalted in life his situation may have been. The tomb of CUTTUB SHAW, at whose expence the *Minar* is said to have been built, is to be seen a few hundred yards to the westward of it: the tomb is rather inconsiderable and of mean appearance, when compared with the many more magnificent mausoleums that are to be met with in the extensive ruins of *Delhi*.

CUTTUB SHAW came to the throne of *Delhi* in the *Mussulman* year 602, corresponding with the *Christian* æra 1205, and died in the *Mussulman* year 607, or *Christian* æra 1210, a reign of only five years; and certainly a period not sufficient to erect so large a building as a mosque, to correspond in magnitude and grandeur with the *Minar* and other parts of the structure that were begun upon, adjoining to it.

I think it may with some degree of reason be inferred that a stop was put to the building of the mosque at the decease of CUTTUB SHAW, and from which period we may date the *Minar* to have been completed; conformably with this inference, it is ascertained that the *Minar* has stood at least 580 years. Excepting the unavoidable and irresistible effects of lightning, from the goodness of the materials, and the excellent judgment with which they appear to have been put together, there is every reason to suppose it would have withstood the ravages of time, for succeeding generations to behold, with admiration and astonishment, for yet many ages.



ASTRONOMICAL OBSERVATIONS MADE ON A VOYAGE TO THE ANDAMAN AND NICOBAR ISLANDS,

By LIEUT. R. H. COLEBROOKE.

DIAMOND ISLAND, near *Cape Negrais*, 1789.

	Latitude.
December 14th. By the Sun's Meridian Altitude taken on shore,	15° 49' 33"
By Captain KYD, - - - - -	15 49 43
	Mean 15 49 38

CARNICOBAR ISLAND, 1790. On board the *Atalanta* Sloop of War, about one mile from the western shore.

January 2d, Sun's mer. alt. 57° 44' 40" Lat. 9° 8' 52"

BEARINGS.

BEARINGS.

Northernmost point of the Land,	-	-	-	N. 16° E.
Southernmost point of do.	-	-	-	S. 21 E.
Nearest shore	-	-	-	N. 70 E.

DANISH POINT, at Nancowry, 1790. *Observations for the Latitude, taken near the Flag Staff.*

	Sun or Stars.	Doub. Mer. Alts.	Latitude N.
January 11th	Capella, -	104° 33' 0"	8° 1' 51"
	Canopus -	58 48 0	8 2 17
20th	α Persei -	97 54 30	8 2 31
21st	Sun's lower limb,	123 42 0	8 2 27
	Capella, -	104 34 30	8 2 36
	β Aurigæ, -	106 18 10	8 2 49
23d	Capella, -	104 34 20	8 2 35
	β Aurigæ, -	106 17 30	8 2 29
Mean of the whole			8 2 26.8

If the first observation by Capella be rejected, the mean of the remaining seven will be 8° 2' 32".

The observations were made with a fine Sextant by TROUGHTON, and Artificial Horizon. The refractions applied in computing these, and all the following observations, were taken from Monsieur LE GENTIL's Table, published in his "*Voyage dans les Mers de l'Inde.*" The declinations of the Stars were taken from Table 7th of the requisite Tables, and partly from DUNN's Catalogue.

OBSERVATIONS for LONGITUDE, by the ECLIPSES of JUPITER'S SATELLITES.

Apparent Time 1790.		Satellite.	Weather.	Imm. or Emer.	Longitude in Time.	Longitude in Degrees.
D.	H. ' "				H. ' "	° ' "
Ja. 11	12 17 44	1	Clear.	Imm.	6 13 25	93 21 15
20	8 36 51	1	Do.	Imm.	6 13 27	93 21 45
23	11 5 12	2	Do.	Imm.	6 13 26	93 21 30

Mean Longitude of Danish Point, East from Greenwich, 93 21 30

The Telescope was a Refractor, magnifying from 80 to 90 times.

PUMBAUK ISLAND, on board the Experiment Cutter. *The Southern Extremity of the Island bearing East.*

February 10th, Sun's Mer. Alt. $67^{\circ} 18' 30''$

Do. by Capt. KYD, $67 \quad 18 \quad 0$

Mean $67 \quad 18 \quad 15$ Latitude $8^{\circ} 13' 1''$

CARNICOBAR ISLAND.

February 15.

Sun's Mer. Alt. $68^{\circ} 5' 30''$ Latitude $9^{\circ} 5' 31''$

The Southernmost point of the Island bore E. $\frac{1}{2}$ S. 1 mile distant.

February 16.

Sun's Mer. Alt. $68^{\circ} 26' 15''$

Do. by Capt. KYD, $68 \quad 26 \quad 30$

Mean $68 \quad 26 \quad 22$ Latitude $9^{\circ} 6' 24''$

Southernmost point of the Island bore W. $\frac{1}{4}$ S. $1\frac{1}{4}$ mile distant.

CHATHAM ISLAND in Port Cornwallis*, at the Great Andaman, 1790.

OBSERVATIONS FOR LATITUDE.

Date.	Names of Stars.	D. Alts. on Mer.	Latitude.
February 23.	Canopus	$51 \quad 31 \quad 0$	$11 \quad 41 \quad 0$
24.	β Aurigæ	$113 \quad 36 \quad 30$	$11 \quad 42 \quad 5$
	α Ursæ Majoris	$77 \quad 40 \quad 0$	$11 \quad 41 \quad 49$
26.	β Aurigæ	$113 \quad 36 \quad 0$	$11 \quad 41 \quad 50$
	ϵ Canis Majoris	$99 \quad 15 \quad 0$	$11 \quad 41 \quad 23$
	δ Canis Majoris	$104 \quad 31 \quad 0$	$11 \quad 40 \quad 49$
28.	β Aurigæ	$113 \quad 36 \quad 20$	$11 \quad 42 \quad 0$
	Canopus	$51 \quad 31 \quad 10$	$11 \quad 40 \quad 55$
March 2.	ϵ Canis Majoris	$99 \quad 15 \quad 30$	$11 \quad 41 \quad 8$
3.	Sirius	$123 \quad 46 \quad 30$	$11 \quad 40 \quad 50$
9.	τ Argo Navis	$63 \quad 14 \quad 40$	$11 \quad 40 \quad 37$
11.	ξ Argo Navis	$77 \quad 48 \quad 30$	$11 \quad 41 \quad 40$
	β Ursæ Majoris	$88 \quad 25 \quad 30$	$11 \quad 42 \quad 5$

Mean $11 \quad 41 \quad 23.9$

* The Old Harbour so called.

OBSERVATIONS for LONGITUDE, by the ECLIPSES of JUPITER'S SATELLITES.

Apparent Time 1790.			Satellite.	Weather.	Imm. or Emer.	Longitude in Time.	Longitude in Degrees.
D	H.	' "				H. ' "	° ' "
Feb. 24	13	31 56,5	2	Clear	Emer.	6 10 24,5	92 36 7,5
26	14	45 59	1	Clear	Emer.	6 10 35	92 38 45
March 7	11	10 41,5	1	Clear	Emer.	6 10 34,5	92 38 37,5
14	8	7 47,5	2	Clear	Emer.	6 10 33,5	92 38 22,5
15	13	6 38,4	1	Clear	Emer.	6 10 19,5	92 34 52,5
16	7	35 34	1	Clear	Emer.	6 10 10	92 32 30
Mean							92 36 32,5

An excellent Chronometer by ARNOLD was used in observing the time; to correct which, frequent observations of the sun and stars were taken. The former by equal or corresponding altitudes, observed before and after noon, to which the proper equations were applied: and in the latter case by taking several altitudes of a star east, and one west, a few minutes before and after the observation: these were calculated separately, and the mean of the results was applied to the correction of the watch. The apparent time, as deduced from the sun or stars, agreed in general within a second or two.

ASTRONOMICAL OBSERVATIONS made on a Survey through the CARNATIC and MYSORE Country.—By Lieutenant R. H. COLEBOOKE.

OBSERVATIONS FOR LATITUDE.

Date.	Names of Stars.	Mer. Alts. observed.	Latitude derived.	Mean Latitude.	Bearing and Distance of the nearest Place.
1791.		° ' "	° ' "	° ' "	
Feb. 2	Capella,	57 19 15	13 4 48	13 3 57	Villout Choultry, W. b. N. $\frac{1}{2}$ N. 1 mile distant.
	Canopus,	24 23 0	13 3 34		
3	β Aurigæ,	58 10 0	13 3 52		
	β Canis Majoris,	59 5 0	13 3 38		
	Sirius,	60 30 10	13 3 53	13 13 14,6	Chitore Fort, N. 65 W. $1\frac{1}{4}$ mile distant.
15	Capella,	57 27 0	13 12 33		
	Aurigæ,	58 19 45	13 13 37		
	Sirius,	60 20 30	13 13 34		
16	β Aurigæ,	58 18 0	13 11 52	13 12 19	Marfundrum Village, S. b. E. 4 furl. distant.
	β Canis Majoris,	58 56 0	13 12 38		
	Sirius,	60 21 37	13 12 27		
18	Capella,	57 25 30	13 11 3		
	Canopus,	24 14 50	13 11 46	13 11 38,7	Moogly Pagoda, W. 5 S. 4 f. d.
	β Aurigæ,	58 18 20	13 12 12		
	Sirius,	60 22 30	13 11 34		

5 F

1791. Feb.

Date.	Names of Stars.	Mer. Alts. observed.	Latitude derived.	Mean Latitude.	Bearing and distance of the nearest Place.
		° ' "	° ' "	° ' "	
1791.					
Feb. 20	Capella,	57 26 45	13 12 19	13 12 51	Palmanaire, S. 60 E. 1 m. d.
	Sirius,	60 21 15	13 12 49		
21	β Aurigæ,	58 19 30	13 13 22		
	Sirius,	60 21 30	13 12 34		
	β Aurigæ,	58 19 20	13 13 12	13 4 35,5	Ooffcottah, N. 72 W. 1 m. 6 f. d.
March 2	β Aurigæ,	58 11 0	13 4 52		
	Sirius,	60 9 45	13 4 19		
May 7	α Urfæ Majoris,	39 36 30	12 27 59	— —	Santanoor, N. b. E. 2 f. d.
13	α Urfæ Majoris,	39 34 15	12 25 44	12 25 42,5	Arakeeree Fort, S. E. 2 f. d.
	Ditto, by Lieut.				
	Bullby,	39 34 12	12 25 41		
25	γ Urfæ Majoris,	47 35 45	12 26 14	12 26 24,6	Kanambaddy, W. 1 m. d.
	δ Urfæ Majoris,	44 15 40	12 26 19		
	ε Urfæ Majoris,	45 22 0	12 26 41		
30	γ Urfæ Majoris,	52 11 50	12 32 47	12 32 43	Tondanoor Village, N. N. W. 6 f. d.
	θ Centauri,	42 8 30	12 32 39		
June 11	ξ Urfæ Majoris,	46 45 45	12 46 2	21 45 29	Yekaty Village, N. 27 E. 4 f. d.
	η Urfæ Majoris,	52 24 30	12 45 24		
	θ Centauri,	41 56 10	12 45 1		
17	η Urfæ Majoris,	52 25 15	12 46 9	12 46 8	Binnelly Village West, $\frac{1}{2}$ f. d.
	θ Centauri,	41 55 0	12 46 7		
19	η Urf. Maj.	52 27 15	12 48 9	12 47 58	Hooliordroog N. 74 W. 4 miles distant.
	θ Centauri,	41 53 20	12 47 47		
June 29	Antares,	51 6 0	12 57 31	12 57 20,5	Maggry Pagoda with the Bull N. 60 E. 1 furlong dist.
	γ Draconis,	40 59 40	12 57 10		
July 21	τ Scorpii,	40 27 30	12 37 23	12 37 42	Anchitty Droog S. 38 E. $3\frac{3}{4}$ m. d.
	γ Draconis,	51 7 30	12 38 1		
25	Antares,	58 29 0	12 34 30		
Septem. 29	δ Cygni,	58 31 30	13 8 41	13 8 50,3	Singanaikanapilly Vill. S. S. E. 2 f. d.
	α Cygni,	58 36 45	13 8 47		
	γ Grus,	38 32 30	13 8 27		
30	δ Cygni,	58 31 35	13 8 46		
October 1	α Cygni,	58 36 45	13 8 47	12 57 39	In the Area of Bangalore Palace.
2	Fomalhaut,	46 8 35	13 8 59		
3	Fomalhaut,	46 8 30	13 9 4		
6	α Grus,	28 54 50	13 9 12		
Novem. 26	Fomalhaut,	46 20 0	12 57 36	12 57 27	Maggry Pagoda, with the Bull, N. 76 W. 4 furl. dist.
	α Cassiopeæ,	47 34 30	12 57 20		
	Do. by Ct. Kyd,	47 35 0	12 57 50		
	δ Cassiopeæ,	43 50 0	12 57 53		
Decem. 16	Sun's lower limb,	53 22 35	13 1 8	13 1 15,5	Sandicoupang Fort East, $\frac{1}{2}$ f. d.
	α Cassiopeæ,	47 38 30	13 1 21		
	θ Eridani,	35 51 30	13 0 59		
	α Perfei,	53 55 45	13 1 34		
Decem. 27	δ Cassiopeæ,	43 49 45	12 57 40	12 57 27	Maggry Pagoda, with the Bull, N. 76 W. 4 furl. dist.
	θ Eridani,	35 55 15	12 57 14		
	α Perfei,	53 52 7	12 57 57		
28	θ Eridani,	35 55 20	12 57 9		
	α Perfei,	53 52 0	12 57 50	12 57 19	
31	Sun's lower limb,	53 40 15	12 57 19		

TABLE OF LATITUDES AND LONGITUDES.

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Date.	Names of Stars.	Mer. Alts. observed.	Latitude derived.	Mean Latitude.	Bearing and Distance of the nearest Place.
1792.		° ' "	° ' "	° ' "	
February 20	β Aurigæ,	57 34 0	12 27 53	12 27 52,2	Camp before Seringapatam, the Great Pagoda bearing from the place of observation S. 2° W. 2½ miles distant— Lat. of Great Pagoda derived 12° 25' 34".
	β Canis Maj.	59 40 45	12 27 51		
	Sirius,	61 6 15	12 27 43		
21	β Aurigæ,	57 34 10	12 28 3		
	β Canis Maj.	59 41 10	12 27 26		
	Sirius,	61 6 0	12 27 58		
29	β Aurigæ,	57 34 10	12 28 3		
March 3	β Aurigæ,	57 34 15	12 28 8		
	Sirius,	61 6 25	12 27 33		
4	Ursæ Majoris,	46 28 0	12 28 3		
	Urs. Maj.	52 7 0	12 27 42	12 54 32	Tripatore Fort, S. E. 1. m. d. Vellore Fort.
15	β Canis Maj.	48 51 0	12 27 45		
	β Canis Maj.	51 28 0	12 28 11		
April 19	α Ursæ Majoris,	39 38 30	12 29 29		
28	α Urs. Maj.	40 3 20	12 54 30	12 54 32	
	δ Centauri,	27 33 15	12 54 34		

OBSERVATIONS for LONGITUDE, by the ECLIPSES of JUPITER'S SATELLITES.

Date and apparent Time of the Observations.	Sat.	Imm. or Emer.	Weather.	Longitude in Time.	Longitude in Degrees.	Bearing and distance of nearest Place.
1791. D. H. ' "				H. ' "	° ' "	
Feb. 22. 12 33 42	1	Imm.	clear.	5 14 10	78 32 30	Palmanaire S. 60 E. 1 m. d.
March 3. 8 54 3	1	Imm.	ditto.	5 10 28	77 37 0	Ooscotta N. 72 W. 1¼ m. d.
May 27. 10 9 42	1	Emer.	windy.	5 6 24	76 36 0	Seringapatam Great Pagoda S. 8° E. 5 m. d.
June 12. 8 25 19,5	1	Emer.	clear.	5 6 52,5	76 43 7,5	Yekaty Village N. 27 E. 4 f. d.
19. 10 18 54	1	Emer.	ditto.	5 7 17	76 40 15	Hoolior-droog N. 74 E. 4. m. d.
1792. Mar. 12. 13 36 9	1	Imm.	ditto.	5 6 12	75 33 0	Camp before Seringapatam Pagoda bearing S. 2 W. 2¼ m. d.
19. 15 32 3	1	Imm.	ditto.	5 6 8	76 32 0	
21. 10 0 54	1	Imm.	ditto.	5 5 57	76 29 15	

Magnifying Power of the Telescope, 80 to 100 times Achromatic.

TABLE of LATITUDES and LONGITUDES of some principal Places in India, determined from Astronomical Observations.—By Mr. Reuben Burrow. Communicated by Lieut. R. H. Colebrooke.

PLACES.	Latit. N.	Longit. in Time.	REMARKS.
Russapugly near Calcutta.	22° 30' 20"	5h 53' 30"	Mr. Burrow's Residence.
Bygonbarry, Dewangunge,	24 48 14 25 9 31	6 0 46 5 58 36	The old Factory on the Barrampooter River

Tealcopee,

TABLE OF LATITUDES AND LONGITUDES

PLACES.	Latit. N.	Longit. in Time.	REMARKS.
Russapugly near Calcutta.	22° 30' 20"	5 ^h 53' 30"	Mr. Burrow's Residence.
Tealcopee,	25 19 16	5 58 34	At the Conflux with the River
Shealdoo Nullah,	25 58 8	5 59 17	
Bakkamarchor,	26 1 44	5 59 43	
Kazycottah,	26 9 4	6 0 33	The Kotie, or Factory
Goalparra,	26 11 21	6 2 9	
Doobarey,	26 1 6	5 59 42	
Dadnachorr,	25 3 36	5 59 45	The large Tree
Pookereah,	24 54 6		Between two large Trees, Centre of the Town
Sagow,	24 35 41		
Tingarchorr,	24 18 6	6 2 15	
Diggamabad,	24 0 38	6 3 7	Mouth of the Nullah
Ameerabad,	23 55 31		
Sampmarray,	23 40 16		
Remateally Nullah,	22 55 35	6 2 54	Conflux with the Megna River
Rajegunge,	22 38 7	6 0 38	End of the Town near Sootaloory
Coweally,	22 37 30	5 59 55	
Gonganagor,	22 37 30	5 59 47	

At Cheduba, and on the Aracan Coast.

PLACES.	Latitude.	Long.	Spot of Observation, and Remarks.
Tree Island,	18° 27' 30"	6 ^h 16' 12"	Center Rock
Cheduba Flag Staff,	18 53 8	6 14 28	
Houfe Island,	18 56 42	6 14 19	
Maykawoody,	18 50 43	6 15 11	Fort of Cheduba
Jy,	19 5 46	6 15 11	Fort of Tumbiah
Dumfil,	18 57 40	6 16 7	An Island in the Cantabida, or Catabida River
Jykuna Island,	18 44 40	6 15 43	N. end of the Island
Chagoo Rock,	18 48 51	6 16 0	Near the mouth of the Catabida River
Kyaunimo,	18 54 36		A Town in the Catabida Harbour
Cedars Point,	18 52 58	6 15 21	A remarkable point in Cheduba

On the Ganges, &c.

Nuddea,	23° 25' 49"	5 ^h 53' 32"	Junction of the Hoogly and Cassimbazar Rivers.
Sackey Fort,	23 40 0		
Gour,	24 53 0	5 52 13	The antient round Tower
Rajemahl,	25 3 15	5 50 56	The Marble Palace
Colgong,	25 16 6	5 48 39	Mr. Cleveland's Bungalow
Mongheer,	25 22 57	5 45 57	Rocky point of the Fort
Patna,	25 36 3	5 41 2	Chehelfetoon, or Alaverdi's Palace near the Fort
Bankipoor,	25 37 38	5 40 40	Granary
Buxar,	25 34 27	5 35 59	Fort Flag Staff
Mouth of the Caramnassa River,	25 30 20	5 35 31	
Mouth of the Goomty,	25 31 25	5 32 36	
Oojear,	25 35 21		
Benares,	25 18 36	5 31 59	The Hindoo Observatory
Chunar Fort,	25 7 40	5 31 22	Flag Staff
Chunar Camp,	25 6 30	5 31 12	Captain Bough's Bungalow

PLACES.	Latitude.	Long.	Spot of Observation, and Remarks.
Tonfe River,	25° 16' 16"	5° 28' 0"	Conflux with the Ganges
Allahabad,	25 25 56	5 27 24	S. E. Corner of the Fort at Preyag
Corrahcottah,	25 33 16	5 26 28	Clofe to the Nullah, highest part of the Town
Surajepoor,	26 10 24	5 21 58	River side near the middle of the Town
Jaujefmow,	26 26 25	5 21 15	Seebfmot on the Hill
Caunpour,	26 30 3	5 20 54	Magazine Gaut
Joognagpoor,	26 44 46	5 20 15	At the Gaut
Nanamow,	26 53 0	5 20 0	At the old Stone Gaut
Mindi Gaut,	27 0 33	5 19 30	
Canouge,	27 3 30	5 19 12	The Fort
Cussumkhore,	27 8 56	5 19 5	Seebfmot on the Hill
Keaffpore,	27 13 25		
Sungrumpore,	27 14 28	5 18 8	The Gaut
Futtyghur,	27 23 11	5 18 5	The Fort
Jillalabad,	27 43 56	5 18 56	The Fort
Berimutana,	27 52 22	5 18 20	The Well
Kheerpoor,	27 58 22	5 18 16	Near the Old Fort
Cutterah,	28 1 47	5 18 12	The Brick Fort
Jeffooah,	28 8 17	5 17 53	Well
Fereedpour,	28 12 54	5 17 41	The Fort
Bareilly,	28 22 5	5 17 5	The Fort
Lumberah,	28 27 39		
Hafizgunge,	28 29 40	5 17 53	The Serai
Nabobgunge,	28 32 29	5 18 11	
Lillowry,	28 36 38		
Pillibeat,	28 37 42	5 18 46	The Edgaw
Do. Hafiz Musjid,	28 38 20	5 18 47	Center of Pillibeat
Gowneerah,	28 37 35		
Barrower,	28 36 53	5 17 55	N. E. end of the Town on the Banks of the Bhagul
Shair Ghur,	28 38 50	5 17 1	Fort
Bourkah,	28 43 23	5 16 26	
Rampour,	28 48 50	5 15 34	N. W. Gate of the City
Moradabad,	28 50 24	5 14 44	Centre of Rustum Khan's Palace
Mahmudpore,	28 42 1	5 14 12	
Sumbul,	28 35 14	5 13 49	The ancient Fort Gate of Kollankee Ootar
Boojepoor,	28 56 39	5 14 55	Seeb Temple in the Tope
Bhyrah,	29 2 11	5 15 6	
Coffipore,	29 12 44	5 15 24	Fort
Hazaretnagor	29 12 5	5 14 53	Fort
Rair,	29 21 13	5 14 33	Hindoo Moat, through the Town
Afzul Ghur,	29 23 45	5 14 14	Palace in the Fort
Sheercote,	29 19 48		Principal Mosque in the City
Nundenah,	29 27 16	5 13 19	Brick Fort
Nidjibadad,	29 36 46	5 12 52	White Mosque
Patter Ghur,	29 36 31	5 12 59	High Gate of the Fort
Chundnywalla,	29 52 8		
Asoph Ghur,	29 44 14	5 12 19	Center of the Fort
Borunwalla,	29 47 26		This Village is in the large Jungle
Lolldong,	29 50 28		Place where the Camp was in 1774
Joogywalla,	29 58 0	5 12 16	Bamboo Fort
Chandy Gaut,	29 56 24	5 12 10	Stone Temple, opposite Hurdwar
Hurdwar,	29 57 9	5 12 9	Northermost Building in the Town
Congree,	29 53 19		Also called Hyder Ghur
Nagal,	29 39 40	5 12 16	The Nawab's Artillery Shed
Mundawer,	29 29 5	5 12 2	Dowlet Khan's Musjid
Darahnagur,	29 16 49	5 12 0	Nidjib Khan's Seray
Chaundpour,	29 13 4	5 12 12	

TABLE OF LATITUDES AND LONGITUDES.

PLACES.	Latitude.	Long.	Spot of Observation, and Remarks.
Amrooah,	28 54 22	5 13 27	Fort of the Sieds
Khuntpour,	28 44 29		
Hussenpour,	28 43 8	5 12 39	Stone Gate of the Fort
Seerfee,	28 28 52	5 12 37	Well of the Town
Anopshir,	28 22 50	5 12 36	On the steep Bank East of the Flag Staff
Donaree,	28 21 10		Mud Fort
Chandoufey,	28 26 51	5 14 45	East Gate of the Town
Bisfoolie,	28 18 51	5 15 17	Doondy Khan's Musjid
Bunneah,	28 12 29		Village in a Jungle
Budawun,	28 2 39	5 16 0	Large antient Mosque of Cuttab ud Dien
Offoheet,	27 48 12	5 16 28	East Gate
Bettoor,	26 37 24	5 20 40	Gow Ghaut
Gopalpour,	26 3 49		
Mobarickpour,	25 31 18		
Bogwangolah,	24 20 45	5 22 50	Mouth of the Culcullia * River
Tea Cally Dumduma,	24 1 26	5 55 40	
Pubna,	24 0 12	5 56 27	The Hindoo Temple
Cossunda,	23 53 48	5 59 3	
Dacca,	23 43 0	6 1 12	The Chief's House, called the Poofhta

* The entrance of the *Culcullee*, or *Culcullia*, River is no longer at *Bogwangolah*, but about twelve miles lower down, between *Murcha* and *Cutlamary*; which change may have been produced by the encroachment of the *Ganges*.

NOTE BY MR. BURROW.

As a more particular account will be given hereafter of the manner in which these Latitudes and Longitudes were deduced, it will be sufficient here to mention, that the Meridian Altitudes of Stars from whence the Latitudes were derived, sometimes amounted to twenty or thirty, North and South, and very seldom were less than five or six, and those mostly on both sides the Meridian; so that, upon the whole, I believe very few of the foregoing Latitudes can be more than five seconds wrong, perhaps not many of them so much, as the single observations with the Sextant seldom differed from one another more than fifteen or twenty seconds, and very often not half the number. As to the Longitudes, it is possible there may in some cases be an error of two or three miles; but I can scarce believe there is any great probability of it, as the observations were made, as well as calculated, in a different and more exact manner than is generally used at present.

ON SOME EXTRAORDINARY FACTS, CUSTOMS, AND PRACTICES OF THE HINDUS.

BY THE PRESIDENT.

IN the preliminary discourse addressed to the Society by our late President, *Man* and *Nature* were proposed as the comprehensive objects of our Researches; and although I by no means think that advantage should be taken of this extensive proposition to record every trivial peculiarity of practice, habit, or thinking, which characterizes the natives of *India*, many singularities will be found amongst them which are equally calculated to gratify curiosity, and to attract the notice of the philosopher and politician.

Of all studies, that of the human mind is of the greatest importance; and whether we trace it in its perfection or debasement, we learn to avoid error, or obtain models for improvement and examples for imitation. In pursuing customs and habits to the principles from which they are derived, we ascertain by the sure rule of experience the effects of natural or moral causes upon the human mind.

The characters of the natives of *India*, notwithstanding all that has been published in *Europe*, are by no means well understood there; and a careful and accurate investigation of them, with a due discrimination of habits and usages, as local or general, would afford a subject for a curious, useful, and entertaining dissertation.

It is not my intention to undertake it. I neither profess to have ability, nor have I leisure for the task; and the preceding remarks are offered to the Society for the purpose only of introducing the recital of some extraordinary facts, customs, and practices of this country, which have occurred to my observation in the course of public duty. If the narrative has too much of the language of office, it may be deemed a sufficient compensation that it is extracted from official documents, and judicial records, and hence has a claim to authenticity.

The inviolability of a *Brábmén* is a fixed principle of the *Hindus*; and to deprive him of life, either by direct violence, or by causing his death in any mode, is a crime which admits of no expiation. To this principle may be traced the practice called *Dberna*, which was formerly familiar at *Benares*, and may be translated

CAPTION

CAPTION OR ARREST. It is used by the *Brábmens* in that city, to gain a point which cannot be accomplished by any other means; and the process is as follows:

The *Brábmens* who adopts this expedient for the purpose mentioned, proceeds to the door or house of the person against whom it is directed, or wherever he may most conveniently intercept him: he there sets downs in *Dberna*, with poison, or a poignard, or some other instrument of suicide in his hand, and threatening to use it if his adversary should attempt to molest or pass him, he thus completely arrests him. In this situation the *Brábmens* fasts; and by the rigor of the etiquette, which is rarely infringed, the unfortunate object of his arrest ought also to fast; and thus they both remain until the institutor of the *Dberna* obtains satisfaction. In this, as he seldom makes the attempt without resolution to persevere, he rarely fails; for if the party thus arrested were to suffer the *Brábmens* sitting in *Dberna* to perish by hunger, the sin would for ever lie upon his head. This practice has been less frequent of late years, since the institution of the Court of Justice at *Benares* in 1783; but the interference of that Court, and even that of the Resident there, has occasionally proved insufficient to check it; as it has been deemed in general most prudent to avoid for this purpose the use of coercion, from an apprehension that the first appearance of it might drive the sinner in *Dberna* to suicide. The discredit of the act would not only fall upon the officers of Justice, but upon the Government itself.

The practice of sitting in *Dberna* is not confined to male *Brábmens* only. The following instance, which happened at *Benares* in the year 1789, will at once prove and exemplify it:—

Beenoo Bhai the widow of a man of the *Brábmínical* tribe, had a litigation with her brother-in-law *BALKISHEN*, which was tried by arbitration; and the trial and sentence were revised by the court of Justice at *Benares*, and again in Appeal.

The suit of *Beenoo* involved a claim of property and a consideration of cast, which her antagonist declared she had forfeited. The decision was favourable to her, but not to the extent of her wishes; and she resolved therefore to procure by the expedient of the *Dberna*, as above explained, what neither the award of arbitration nor the judicial decision had granted.

In conformity to this resolution, *BEENOO* sat down in *Dberna* on *BALKISHEN*; and he, after a perseverance of several days, apprehensive of her death, repaired with her to a *Hindu* temple in *Benares*; where they both continued to fast some time longer. Thirteen days had elapsed from the commencement of *BALKISHEN*'s arrest,

arrest, when he yielded the contest, by entering into a conditional agreement with BEENOO, that if she could establish the validity of her cast, and in proof thereof prevail on some creditable members of her own tribe to partake with her of an entertainment of her providing, he would not only defray the expence of it, but would also discharge her debts. The conditions were accepted by BEENOO, who fulfilled her part of the obligation; and her antagonist, without hesitation, defrayed the charges of the entertainment: but the non-performance of his engagement to discharge her debts, induced BEENOO BHAI to institute a suit against him; and the practice of the *Dberna*, with the proofs of it, were thus brought forward to official notice.

It is not unworthy of remark, that some of the *Pandits*, on being consulted, admitted the validity of an obligation extorted by *Dberna*, provided the object were to obtain a just cause, or right wickedly withheld by the other party, but not otherwise. Others again rejected the validity of an engagement so extorted, unless it should be subsequently confirmed by the writer, either in whole or in part, after the removal of the coercion upon him.

Of the practice which I have related, no instance exactly similar has occurred to my knowledge in *Bengal* or *Behar*, although *Bráhmens*, even in *Calcutta*, have been known to obtain charity or subsistence from *Hindus*, by posting themselves before the doors of their houses, under a declaration to remain there until their solicitations were granted. The moderation of the demand generally induces a compliance with it; which would be withheld if the requisition were excessive. But I have been credibly informed that instances of this custom occasionally occur in some parts of the *Vizier's* dominions, and that *Bráhmens* have been successfully employed there to recover claims, by calling upon the debtor to pay them, with a notification that they would fast until the discharge of the debt. The debtor, if he possesses property or credit, never fails to satisfy the demand against him.

Another practice, of a very singular and cruel nature, is called Erecting a *Koor*. This term is explained to mean a circular pile of wood which is prepared ready for conflagration. Upon this, sometimes a cow, and sometimes an old woman, is placed by the constructors of the pile; and the whole is consumed together. The object of this practice is to intimidate the officers of Government, or others, from importunate demands, as the effect of the sacrifice is supposed to involve in great sin the person whose conduct forces the constructor of the *Koor* to this expedient.

An instance of this practice occurred in a district of the province of *Benares* in the

year 1788. Three *Bráhmens* had erected a *Koor*, upon which an old woman had suffered herself to be placed; the object of temporary intimidation was fully attained by it, and the timely interposition of authority prevented the completion of the sacrifice. It cannot be uninteresting to know the cause which urged the three *Brábmens* to this desperate and cruel resource. Their own explanation is summarily this: That they held lands in partnership with others, but that the public assessment was unequally imposed upon them; as their partners paid less, whilst they were charged with more than their due proportion; they therefore refused to discharge any part of the revenues whatever, and erected a *Koor* to intimidate the government's officers from making any demands upon them. Their sole object, as they explicitly declared, was to obtain an equal distribution of the public assessment between themselves and their partners.

A woman, nearly blind from age, had in this instance been placed upon the *Koor*: she was summoned to appear before the English superintendant of the province, but absolutely refused to attend him; declaring that she would throw herself into the first well rather than submit. The summons was not enforced.

This is the only instance of setting up a *Koor* which had occurred for many years, previous to 1788, although the practice is said to have been frequent formerly. No information has reached me of the repetition of this practice in *Benares*, or of the existence of it in any other part of the Company's possessions; nor is it pretended that it was ever general throughout *Benares*, but is expressly asserted to have been limited to a very small portion of that extensive province.

This last mentioned fact is very opposite to that humanity and mildness of disposition by which the author of the historical disquisition, regarding ancient and modern *India*, affirms the inhabitants of this country to have been distinguished in every age. As a general position, liable to particular exceptions, I am not authorized to dispute it: but it must at the same time be admitted, that individuals in *India* are often irritated by petty provocations to the commission of acts which no provocation can justify; and, without reference to the conduct of professed depredators, examples may be produced of enormities scarcely credible: the result of vindictive pride, and ungoverned violence of temper.

In support of these assertions, I shall quote three remarkable instances, attested by unquestionable evidence. In 1791 SOODISHTER MIER, a *Brábmén*, the farmer of land paying revenue and tenant of tax free land in the province of *Benares*, was summoned to appear before a native officer, the deputy collector of the district where

where he resided. He positively refused to obey the summons, which was repeated without effect; and, after some time, several people were deputed to enforce the process, by compelling his attendance. On their approaching his house he cut off the head of his deceased son's widow, and threw it out. His first intention was to destroy his own wife; but it was proved in evidence that, upon his indication of it, his son's widow requested him to decapitate her; which he instantly did.

In this case, the process against SOODISHTER was regular, his disobedience contemptuous; his situation in life entitled him to no particular exemption, he had nothing to apprehend from obeying the requisition, and he was certain of redress if injury or injustice were practised upon him.

Another *Bráhmén*, named BALOO PAUNDEH, in 1793, was convicted of the murder of his daughter. His own account of the transaction will best explain it, and his motives; I give it in abstract. That about twelve years before the period of the murder, he, BALOO, and another man, were joint tenants and cultivators of a spot of ground, when his partner BALOO relinquished his share. In 1793 this partner again brought forward a claim to a share in the ground: the claim was referred to arbitration, and a decision was pronounced in favour of BALOO. He consequently repaired to the land, and was ploughing it, when he was interrupted by his opponent. The words of BALOO are as follows: "I became angry, and
" enraged at his forbidding me, and bringing my own little daughter APMUNYA,
" who was only a year and a half old, to the said field, I killed her with my
" sword." This transaction also happened in the province of *Benares*.

The last instance is an act of matricide, perpetrated by BEECHUK and ADHER, two *Bráhméns*, and zemindars, or proprietors of landed estates, the extent of which did not exceed eight acres. The village in which they resided was the property of many other zemindars. A dispute, which originated in a competition for a general superintendence of the revenues of the village, had long subsisted between the two brothers and a person named GOWRY; and the officer of government, who had conferred this charge upon the latter, was intimidated into a revocation of it by the threats of the mother of BEECHUK and ADHER to swallow poison, as well as to the transfer of the management to the two *Bráhméns*. By the same means of intimidation he was deterred from investigating the complaints of GOWRY, which had been referred to his enquiry by his superior authority.

But the immediate cause which instigated the *Bráhméns* to murder their mother, was an act of violence, said to have been committed by the emissaries of GOWRY, with

with or without his authority, and employed by him for a different purpose, in entering their house, during their absence at night, and carrying off forty rupees, the property of BEECHUK and ADHER, from the apartments of their women.

Beechuk first returned to his house, where his mother, his wife, and his sister-in-law, related what had happened. He immediately conducted his mother to an adjacent rivulet, where, being joined in the grey of the morning by his brother ADHER, they called out aloud to the people of the village, that although they would overlook the assault as an act which could not be remedied, the forty rupees must be returned. To this exclamation no answer was received; nor is there any certainty that it was even heard by any person; and BEECHUK without further hesitation drew his scymetar, and at one stroke severed his mother's head from her body, with the professed view, as entertained and avowed both by parent and son, that the mother's spirit, excited by the beating of a large drum during forty days, might for ever haunt, torment, and pursue to death GOWRY and the others concerned with him. The last words which the mother pronounced were, that she would blast the said GOWRY and those connected with him.

The violence asserted to have been committed by the emissaries of GOWRY, in forcibly entering the female apartments of BEECHUK and ADHER, might be deemed an indignity of high provocation; but they appear to have considered this outrage as of less importance than the loss of their money, which might and would have been recovered with due satisfaction, by application to the Court of Justice in *Benares*. The act which they perpetrated had no other sanction than what was derived from the local prejudices of the place where they resided: it was a crime against their religion: and the two brothers themselves quoted an instance of a *Bráhmén*, who six or seven years before had lost his cast and all intercourse with the other *Bráhméns*, for an act of the same nature. But in truth BEECHUK and ADHER, although *Bráhméns*, had no knowledge or education suitable to the high distinction of their cast, of which they preserved the pride only; being as grossly ignorant and prejudiced as the meanest peasants in any part of the world. They seemed surprized when they heard the doom of forfeiture of cast pronounced against them by a learned *Pandit*, and openly avowed that, so far from conceiving they had committed a barbarous crime, both they and their mother considered their act as a vindication of their honour, not liable to any religious penalty.

The Society will observe, with some surprize, that the perpetrators of the several acts which I have related, were *Bráhméns*. These facts took place within
three

three districts only of the province of *Benares*, named *Kuntel*, *Buddhoee*, and *Kereat Sekur*. I mention these particulars that I may not lead any person into a common error of deducing general conclusions from partial circumstances. In *Bengal* and *Behar*, where the passions of jealousy, pride, and revenge, sometimes produce very fatal consequences, I recollect no instance where the efforts of their violence have been transferred from the objects which excited it to others that were innocent, as in the preceding cases.

That the practice of Infanticide should ever be so general as to become a custom with any sect or race of people, requires the most unexceptionable evidence to gain belief: and I am sorry to say that the general practice, as far as regards female infants, is fully substantiated with respect to a particular tribe on the frontiers of *Juampore*: a district of the province of *Benares*, adjoining to the country of *Oude*. A race of *Hindus* called *Rajekoomars* reside here; and it was discovered in 1789 only, that the custom of putting to death their female offspring, by causing the mothers to starve them, had long subsisted, and did actually then very generally prevail amongst them. The resident at *Benares*, in a circuit which he made through the country where the *Rajekoomars* dwell, had an opportunity of authenticating the existence of the custom from their own confessions: he conversed with several: all unequivocally admitted it, but all did not fully acknowledge its atrocity; and the only reason which they assigned for the inhuman practice, was the great expence of procuring suitable matches for their daughters, if they allowed them to grow up. It is some satisfaction to add, that the custom, though general, was not universal, as natural affection, or some other motive, had induced the fathers of some *Rajekoomar* families to bring up one, or more, of their female issue; but the instances where more than daughter had been spared, were very rare. One village only furnished a complete exception to the general custom; and the *Rajekoomar* informant, who noticed it, supposed that the inhabitants had sworn, or solemnly pledged themselves to each other, to bring up their females. In proof of his assertion in favour of the village in question, he added, that several old maids of the *Rajekoomar* tribe then actually existed there, and that their celibacy proceeded from the difficulty of procuring husbands for them, in consequence of the great expences attending the marriages of this class of people.

It will naturally occur to the Society to ask, by what mode a race of men could be continued under the existence of the horrid custom which I have described. To this my documents enable me to reply, partly from the exceptions to the general custom,

custom, which were occasionally admitted by the more wealthy *Rajekoomars*; more particularly those who happened to have no male issue; but chiefly by intermarriages with other *Rajepoot* families, to which the *Rajekoomars* were compelled by necessity.

A prohibition enforced by the denunciation of the severest temporal penalties, would have little efficacy in abolishing a custom which existed in opposition to the feelings of humanity and natural affection; and the sanction of that religion which the *Rajekoomars* professed was appealed to, in aid of the ordinances of civil authority. Upon this principle an engagement, binding themselves to desist in future from the barbarous practice of causing the death of their female children, was prepared, and circulated amongst the *Rajekoomars* for their signature; and as it was also discovered that the same custom prevailed, though in a less degree, amongst a smaller tribe of people also, within the province of *Benares*, called *Rajebunses*, measures were adopted at the same time, to make them sensible of its iniquity, and to procure from them a subscription similar to that exacted from the *Rajekoomars*.

The following is a copy of the engagement which the latter subscribed:—

“ Whereas it hath become known to the Government of the Honourable East
 “ India Company, that we of the tribe of *Rajekoomars* do not suffer our female
 “ children to live; and whereas this is a great crime, as mentioned in the *Brehma*
 “ *Bywant Pooran*, where it is said that killing even a *Fetus* is as criminal as killing
 “ a *Bráhmén*; and that for killing a female, or woman, the punishment is to suffer
 “ in the *nerk*, or hell, called *Kat Shootul*, for as many years as there are hairs on
 “ their female’s body, and that afterwards that person shall be born again, and suc-
 “ cessively become a leper, and be afflicted with the *Jukbima*; and whereas the
 “ British Government in *India*, whose subjects we are, have an utter detestation
 “ of such murderous practice, and we do ourselves acknowledge, that although
 “ customary among us, they are highly sinful, we do therefore hereby agree not
 “ to commit any longer such detestable acts; and any among us (which God for-
 “ bid) who shall be hereafter guilty thereof, or shall not bring up and get our
 “ daughters married, to the best of our abilities, among those of our cast, shall be
 “ expelled from our tribe, and shall neither eat nor keep society with us, besides
 “ suffering hereafter the punishments denounced in the above *Pooran* and *Shaster*.
 “ We have therefore entered into this agreement.

“ Dated the 17th December, 1789.”

A re-

A record of the various superstitious ceremonies which prevail throughout Hindustan, would form a large and curious volume; but as all the preceding instances which I have related, are taken from transactions in *Benares*, I cannot refrain from mentioning the superstitious notions of the people of that province regarding the sugar-cane: which proves an ignorance that may be admitted in palliation of grosser errors. The narrative is a mere extract from an official record, with an omission of some words, and some trifling verbal alterations.

As it is usual with the ryots, or husbandmen, to reserve a certain portion of the canes of the preceding year to serve as plants, for their new cultivation, it very frequently happens that inconsiderable portions of the old cane remain unappropriated. Whenever this happens, the proprietor repairs to the spot on the 25th of *Jeyte*, or about the 11th of *June*, and having sacrificed to *NAGBELE*, or the tutelary deity of the cane, he immediately sets fire to the whole, and is exceedingly careful to have this operation executed in as complete and efficacious a manner as possible.

This act is performed from an apprehension, that if the old canes were allowed to remain in the ground beyond the 25th of *Jeyte*, they would in all probability produce flowers and seeds; and the appearance of these flowers they consider as one of the greatest misfortunes that can befall them.

They unanimously assert, that if the proprietor of a plantation ever happens to view even a single cane therein in flower after the 25th of *Jeyte*, the greatest calamities will befall himself, his parents, his children, and his property; in short, that death will sweep away most of the members, or indeed the whole of his family, within a short period after this unfortunate spectacle. If the proprietor's servant happens to see the flower, and immediately pulls it from the stalk, buries it in the earth, and never reveals the circumstance to his master; in this case they believe that it will not be productive of any evil consequence. But should the matter reach the proprietor's knowledge, the calamities before stated must, according to the prevailing ideas, infallibly happen.

In support of this belief, many of the most aged zemindars and ryots in the province of *Benares*, recited several instances of the above nature, which they affirmed to have actually happened during their own time; and moreover, that they had been personal witnesses to the evils and misfortunes which befel the unhappy victims of the description alluded to.

When we reflect how generally credit was given to the power of witchcraft, long after the revival of letters in *Europe*, and that names of great repute for learning and abilities

abilities are found amongst its defenders, we shall not be surprized that charms and amulets are worn in this country by men of superior rank and education; that astrologers are consulted to name the fortunate hour for commencing a journey or expedition; and that the fascinating influence of an evil eye upon the human constitution, as well as the power of witchcraft, is admitted by the vulgar in general. Fortunately, however, the practice is not supposed to bear any proportion to the belief of the power; although two recent instances occur to my recollection, of individuals having been sacrificed to this popular delusion; or at least the imputation of witchcraft was made the pretence for depriving them of life.

But the judicial records contain a case of great enormity, in which five women were put to death for the supposed practice of sorcery. I shall submit the circumstances of this transaction, with some detail, before the Society, premising that it happened in a district of *Ramgur*, the least civilized part of the Company's possessions, amongst a wild and unlettered tribe, denominated *Soontaar*, who have reduced the detection and trial of persons suspected of witchcraft to a system.

Three men of the cast of *Soontaar*, were in the year 1792 indicted for the murder of five women; the prisoners without hesitation confessed the crime with which they were charged, and pleaded in their defence that with their tribes it was the immemorial custom and practice to try persons notorious for witchcraft. That for this purpose an assembly was convened of those of the same tribe, from far and near, and if after due investigation the charge was proved, the sorcerers were put to death, and no complaint was ever preferred on this account to the ruling power. That the women who were killed had undergone the prescribed form of trial, were duly convicted of causing the death of the son of one of the prisoners by witchcraft, and had been put to death by the prisoners, in conformity to the sentence of the assembly.

The prosecutors, who, agreeably to the forms of the *Mohammedan* law, were the relations of the deceased women, declared they had no charge to prefer against the prisoners, being satisfied that their relations had really practised sorcery.

The custom pleaded by the prisoners was fully substantiated by the testimony of a great number of witnesses, who recited specific facts in support of it, without any denial or disagreement; and from the collective evidence exhibited in the course of the enquiry, the following curious and extraordinary circumstances appeared:—

That the successive demise of three or four young people in a village, led to a suspicion

suspicion of sorcery as the cause of it; and the inhabitants taking alarm were upon the watch to detect the witches. They were generally discovered dancing naked at midnight by the light of a lamp, with a broom tied round their waists, either near the house of a sick person, or on the outside of the village.

To ascertain with a greater degree of certainty the persons guilty of practising witchcraft, the three following modes are adopted :

First. Branches of the *Saul* tree, marked with the names of all the females in the village, whether married or unmarried, who have attained the age of twelve years, are planted in the water in the morning, for the space of four hours and a half, and the withering of any of these branches is proof of witchcraft against the person whose name is annexed to it.

Secondly. Small portions of rice enveloped in cloths, marked as above, are placed in a nest of white ants; the consumption of the rice in any of the bags, establishes sorcery against the woman whose name it bears.

Thirdly. Lamps are lighted at night; water is placed in cups made of leaves, and mustard-seed and oil is poured, drop by drop, into the water, whilst the name of each woman in the village is pronounced; the appearance of the shadow of any woman on the water, during this ceremony, proves her a witch.

Such are the general rules for ascertaining those who practise witchcraft. In the instance which I have quoted, the witnesses swore, and probably believed, that all the proofs against the unfortunate women had been duly verified: they assert in evidence, that the branches marked with the names of the five women accused were withered; that the rice in the bags having their specific names, was devoured by the white ants, whilst that in the other bags remained untouched; that their shadows appeared on the water, on the oil being poured upon it whilst their names were pronounced; and farther, that they were seen dancing at midnight in the situation above described.

It is difficult to conceive that this coincidence of proof could have been made plausible to the grossest ignorance, if experience did not shew that prepossession will supersede the evidence of the senses.

The following custom would be too trivial for notice, if it were not strongly descriptive of the simplicity and ignorance which mark the character of the generality of the inhabitants of *Ramgur*.

From habitual neglect in ascertaining the quantities of land held in lease, and in defining with accuracy their respective tenures, frequent disputes arise between

the inhabitants of different villages regarding their boundaries: to determine them, a reference is usually made to one or more of the oldest inhabitants of the adjacent villages; and if these should not agree in their decision, other men are selected from the inhabitants of the villages claiming the disputed ground; and the trial proceeds as follows: Holes are dug in the contested spot, and into these holes each of the chosen men puts a leg, and the earth is then thrown in upon it; and in this situation they remain until one either expresses a wish to be released, or complains of being bitten or stung by some insect. This decides the contest, and the property of the ground is adjudged to belong to that village the inhabitant of which goes through the trial with the most fortitude, and escapes unhurt by insects.

If the preceding detail has no relation to science, it is at least descriptive of manners; and in availing myself of the opportunities afforded by official occupations (which is all indeed that these occupations admit) to contribute my portion to the researches of the Society, my example will, I hope, be imitated by those who with the same, or greater opportunities, possess more knowledge, ability, and leisure.

N O T E.

HAVING lately received some further documents on the subject of the *Dburna*, which I did not possess when the preceding paper was read to the Society, I have extracted from them what appears to me requisite to elucidate this extraordinary practice. From these documents it appears that several cases of *Dburna* had been brought before the Provincial Court of Justice at *Benares*, and as a penalty had been annexed to the performance of this mode of importunity, it became necessary to define with precision the rules constituting *Dburna*, according to the *Shaster* and *Usage*.

For this purpose a question was proposed to several *Pandits*, inhabitants of the province and city of *Benares*; and the answer subscribed by twenty-three *Pandits* is as follows:

“ Any one who sits *Dburna* on another's door, or in his house for the realization of a debt, or for other purpose, in which the party sitting takes with him some weapon or poison, and sits down; nor does he eat himself, nor allow the party against whom he is sitting, or his family, to eat; nor does he allow any person

person ingrefs into that person's house nor egress from it, and addressing himself in terms of the strongest oaths to the people of the house, he says, "If any of those of your house shall eat victuals, or go into your house, or go out of it, I shall either wound myself with this weapon, or swallow this poison;" and it does sometimes happen that both these events take place, and that he who sits in *Dburna* is not to remove from it without the intreaty of those on whom he is sitting, or the order of the *Hakim*. Whenever all the requisites above mentioned are found united, they constitute *Dhurna*; but if any one of them be wanting, that is not *Dhurna*, but *Tuckaza* or *Dunning*: and as no text of the *Shaster* hath been found concerning *Dhurna*, wherefore we have delivered the requisites thereof according to the common custom and practice."

There is some difference in the opinions of other *Pandits* as to what is understood to constitute *Dhurna*; but the quotation which I have inserted, appears to me to contain the most authentic information on this subject.

The Society will observe that the practice is not specifically pointed out in the *Sbaster*, but has the sanction of usage only.

The following instance is of late occurrence. In January 1794, MOHUN PANREH, an inhabitant of a district in the province of *Benares*, sat down in *Dhurna* before the house of some *Rajepoots*, for the purpose of obtaining the payment of *Birt*, or a charitable subsistence to which he had a claim, and in this situation destroyed himself by swallowing poison. Some of the relations of the deceased retained his corpse for two days before the house of the *Rajepoots*; who thus were compelled to forego taking sustenance, in order to induce them to settle the *Birt* on the heir of the deceased *Bráhmén*.

DESCRIPTION OF THE YAK OF TARTARY, CALLED SOORA-GOY, OR THE BUSHY-TAILED BULL OF TIBET.

By Lieutenant SAMUEL TURNER.

THE *Yak* of *Tartary*, called *Soora-Goy* in *Hindoستان*, and which I term the bushy-tailed bull of *Tibet*, is about the height of an *English* bull, which he resembles in the

the figure of the body, head, and legs. I could discover between them no essential difference, except only that the *Yak* is covered all over with a thick coat of long hair. The head is rather short, crowned with two smooth round horns, that, tapering from the setting-on, terminate in sharp points, arch inwardly, and near the extremities are a little turned back; the ears are small; the forehead appears prominent, being adorned with much curling hair; the eyes are full and large; the nose smooth and convex; the nostrils small; the neck short, describing a curvature nearly equal both above and below; the withers high and arched; the rump low. Over the shoulders rises a bunch, which at first sight would seem to be the same kind of exuberance peculiar to the cattle of *Hindoostan*; but in reality it consists in the superior length of the hair only, which as well as that along the ridge of the back to the setting-on of the tail, grows long and erect, but not harsh. The tail is composed of a prodigious quantity of long flowing glossy hair descending to the hock, and is so extremely well furnished, that not a joint of it is perceptible; but it has much the appearance of a large bunch of hair artificially set on. The shoulders, rump, and upper part of the body is clothed with a sort of thick soft wool, but the inferior parts with straight pendant hair, that descends below the knee; and I have seen it so long in some cattle which were in high health and condition, as to trail upon the ground. From the chest, between the forelegs, issues a large pointed tuft of hair, growing somewhat longer than the rest. The legs are very short. In every other respect, hoofs, &c. he resembles the ordinary bull. There is a great variety of colours amongst them, but black or white are the most prevalent. It is not uncommon to see the long hair upon the ridge of the back, the tail, tuft upon the chest, and the legs below the knee white, when all the rest of the animal is jet black.

These cattle, though not large boned, from the profuse quantity of hair with which they are provided, appear of great bulk. They have a down heavy look, but are fierce, and discover much impatience at the near approach of strangers. They do not low loud (like the cattle of *England*) any more than those of *Hindoostan*; but make a low grunting noise scarcely audible, and that but seldom, when under some impression of uneasiness. These cattle are pastured in the coldest parts of *Tibet*, upon the short herbage peculiar to the tops of mountains and bleak plains. That chain of lofty mountains situated between lat. 27 and 8, which divide *Tibet* from *Bootan*, and whose summits are most commonly clothed with snow, is their favourite haunt. In this vicinity the southern glens afford them food and shelter during

during the severity of winter ; in milder seasons the northern aspect is more congenial to the r nature, and admits a wider range. They are a very valuable property to the tribes of illiterate *Tartars*, who live in tents and tend them from place to place, affording their herdsmen a mode of conveyance, a good covering, and subsistence. They are never employed in agriculture, but are extremely useful as beasts of burthen ; for they are strong, sure footed, and carry a great weight. Tents and ropes are manufactured of their hair ; and I have, though amongst the humblest rank of herdsmen, seen caps and jackets worn of their skin. Their tails are esteemed throughout the *East*, as far as luxury or parade have any influence on the manners of the people ; and on the continent of *India* are found, under the denomination of *Chowries*, in the hands of the meanest grooms as well as occasionally in those of the first ministers of state. Yet the best requital with which the care of their keepers is at length rewarded for selecting them good pastures, is in the abundant quantity of rich milk they give, yielding most excellent butter, which they have a custom of depositing in skins or bladders, and excluding the air : it keeps in this cold climate during all the year ; so that after some time tending their flocks, when a sufficient stock is accumulated, it remains only to load their cattle and drive them to a proper market with their own produce, which constitutes, to the utmost verge of *Tartary*, a most material article of merchandize.

A DESCRIPTION OF THE JONESIA.

By Doctor ROXBURGH.

CL. HEPTANDRIA MONOGYNIA.

ESSENTIAL CHARACTER.

CALYX, two-leaved ; Corol, one-petaled, Pistil-bearing ; base of the Tube impervious ; Stamens long, ascending, inserted into the margin of a glandulous nectarial ring, which crowns the mouth of the tube, the uppermost two of which more distant ; Style declining. Legume turgid.

Consecrated

Consecrated to the remembrance of our late President, the most justly celebrated Sir WILLIAM JONES, whose great knowledge of this science, independent of his other incomparable qualifications, justly entitles his memory to this mark of regard.

JONESIA As'o'CA.

ASJOGAM. Hort, Mat. 5, P. 117, Tab. 59.

As'o'CA, is the *Sanscrit* name.

VANJULA, a synonyme.

RUSSUK of the *Bengalese*.

Found in gardens about *Calcutta*, where it grows to be a very handsome middling sized ramous tree; flowering time the beginning of the hot season; Seeds ripen during the rains. The plants and seeds were, I am informed, originally brought from the interior parts of the country, where it is indigenous.

Trunk, erect, though not very straight. Bark dark brown, pretty smooth. Branches numerous, spreading in every direction, so as to form a most elegant shady head.

Leaves alternate, abruptly feathered, sessile, generally more than a foot long; when young pendulous and coloured.

Leaflets opposite, from four to six pair, the lowermost broad lanced, the upper lanced; smooth, shining, firm, a little waved, from four to eight inches long.

Petiole common, round and smooth.

Stipule axillary, solitary; in fact a process from the base of the common petiole, as in many of the grasses and monandriffs, &c.

Umbels terminal and axillary; between the stipule and branchlet, globular, crowded, subsessile, erect.

Bracts, a small hearted one under each division of the umbel.

Peduncle and pedicels smooth, coloured.

Flowers very numerous, pretty large; when they first expand, they are of a beautiful orange colour, gradually changing to red, forming a variety of lovely shades; fragrant during the night.

Calix perianth, below two-leaved, leaflets small, nearly opposite, coloured, hearted, bract-like, marking the termination of the pedicel, or beginning of the tube of the corol.

Corol

Corol one-petal'd, funnel-form ; tube slightly incurved, firm and fleshy, tapering towards the base (club-funnel-shaped) and there impervious ; border four-parted ; division spreading, suborbicular ; margins most slightly woolly : one-third the length of the tube.

Nectary a stameniferous and pistiliferous ring crowns the mouth of the tube.

Stamens, filaments (generally) seven, and seven must, I think, be the natural number ; viz. three on each side, and one below, above a vacancy, as if the place of an eighth filament, and is occupied on its inside by the pistil ; they are equal, distinct, ascending, from three to four times longer than the border of the corol.

Anthers, uniform, small, incumbent.

Pistil, germ oblong, pediceled ; pedicel inserted into the inside of the nectary, immediately below the vacant space already mentioned ; Style nearly as long as the stamens, declining ; Stigma simple.

Pericarp, legume scimitar form, turgid, outside reticulated, otherwise pretty smooth, from six to ten inches long, and about two broad.

Seeds generally from four to eight, smooth ; grey, size of a large chestnut.

Note. Many of the flowers have only the rudiment of a pistil : a section of one of these is seen at D.

REFERENCES.

- A. *A branchlet natural size.*
- B. *A single flower a little magnified, aa the calyx.*
- C. *A section of the same, exhibiting four of the stamens, 1.1.1.1. the pistil 2, and how far the tube is perforated.*
- D. *A similar section of one of the abortive flowers ; 3 is the abortive pistil.*
- E. *The ripe legume opening near the base, natural size. Note, the space between the b and c marks the original tube of the corol.*
- F. *One of the seeds natural size.*
- G. *The base of the common petiole, with its stipule ; aa the petioles of the lower pair of leaflets.*

Astronomical Observations, by WILLIAM HUNTER, Esq.

LATITUDES OBSERVED.

1793.	PLACES.	Sun or Star.	Latitude.	Remarks.
Septem. 27	<i>Khodabgunge</i> , Camp on the South Bank of the Caly-Nuddee: Gate N. 58 W. 4, 1 Furlongs.	☉ M. A.	27° 10' 00"	Clear. Moderate. By Survey, difference of Latitude between <i>Futtehgurb</i> and <i>Khodabgunge</i> is 11' 1", <i>Khodabgunge</i> and <i>Jelalabad</i> 4' 54". Making <i>Futtehgurb</i> 27° 22' 8", these gives <i>Khodabgunge</i> 27° 11' 7" and <i>Jelalabad</i> 27° 6' 13". As the last agrees so exactly with the observation, I think the Latitude observed at <i>Khodabgunge</i> was too little.
28	<i>Jelalabad</i> . Gate N. 52 W. 1, 4 F.	☉ M. A.	27 6 9	Clear. Moderate.
29	<i>Meerin-ca-Seray</i> , N. 43 W. 2, 7 F.	Do.	27 1 17	Do. Calm.
30	<i>Poorooab</i> , opposite <i>Nanamow</i> ; which bears S. 73 W. 12 Fs.	Do.	26 53 42	Do. Moderate.
October 2	<i>Hafan-Gunge</i> , Gate N. 62 W. 1 F.	Do.	26 46 18	Do. Do.
5	<i>Lucknow</i> , Mr. Taylor's House.	Do.	26 51 11	Do. Do.
17	<i>Lucknow</i> , Mr. Taylor's House.	Do.	26 51 1	Do. Do.
Decem. 12	<i>Futtehgurb</i> , my Bungalow.	Do.	27 22 23	Do. Do.
22	<i>Jelalabad</i> (Station of Sep. 28.)	Do.	27 5 59	Do. Do.
23	<i>Meerin-ca-Seray</i> (Do. of 29.)	Do.	27 1 19	Do. Do.
25	<i>Tekeab</i> , N. 85. W. 0, 8 F.	Do.	26 50 59	Do. Windy.
1794, Jan. 16	<i>Sirt'birra</i> , W. N. W. 2 Fs.	Do.	26 53 57	Do. Moderate.
17	<i>Sufdergunge</i> , S. 40 W. 1 F.	Do.	26 55 11	Do. Windy.
18	<i>Derriabad</i> , S. 64 W. 1, 5 F.	Do.	26 53 37	Do. Do.
	Ditto,	☉ 2 Alts.	26 53 31	Do. Do.
19	<i>Shujab-Gunge</i> , N. 28 W.—S. 72 W. } nearest distance (S. end) 0, 8 F.	☉ M. A.	26 49 35	Do. Do.
Jan 20	<i>Noray</i> , N. E.—S. 55 W. nearest 30 Yds.	Do.	26 46 45	Do. Do.
21	<i>Surya-koond</i> , Temple of the Sun, N. 47 W. 2, 16 Fs. }	Do.	26 45 6	Do. Do.
22	<i>Begum-Gunge</i> , N. 48 W.—S. 27 W. } nearest distance 50 Yards.	Do.	26 39 39	Do. Moderate.
23	<i>Tandab</i> , Bungalabs.	Do.	26 33 18	Do. Do.
25	Ditto, Do.	Do.	26 33 29	Do. Do.
26	<i>Birriar-Gunge</i> , Gate S. 70 E. 1, 4 Fs.	Do.	26 38 40	Do. Do.
27	<i>Jelal-ud-deen-nagur</i> , S. 66 E. 1, 8 Fs.	Do.	26 43 5	Do. Do.
28	<i>Oudb.</i> Tomb of <i>Burla</i> , N. 56 W. 1, 8 Fs. }	Do.	26 48 43	Do. Do.
29	Do. at Tomb of <i>Burla</i> .	Do.	26 48 42	Do. Do.
30	<i>Fyzabad</i> , Octagon Tower at <i>Rumnaab</i> .	Do.	26 48 32	Do. Windy.
Jan. 31	<i>Fyzabad</i> , Octagon Tower in <i>Rumnaab</i> .	Do.	26 48 17	Do. Moderate.
				Sun had passed the Meridian about three Minutes. Observation close.
Feb. 1	<i>Noray</i> , N. 42 E.—S. 68 E. 1. F.	Do.	26 46 50	Thin flitting clouds; calm.
2	<i>Shujab-Gunge</i> , Gate S. 48 E. 4, 9 F.	Do.	26 50 3	Clear. Moderate.
3	<i>Derriabad</i> , Gate S. 80 E. 1, 3 F.	Do.	26 54 15	Do. Windy.
4	<i>Sufder-Gunge</i> , Stat. of Jan. 17.	Do.	26 55 45	Do. Do.
March 30	<i>Bewar</i> .	β. U. M.	27 13 41	Do. Moderate.
31	<i>Meinpoory</i> , <i>Mohcumgunge</i> , S. 31—73 W. 2, 75 F. }	α. Hydræ	27 14 30	Do. Do.
April 1	Ditto, Do.	β. U. M.	27 13 21	Do. Windy.
2	<i>Boongaung</i> .	α. Hydræ	27 15 30	Do. Moderate.

1794.	PLACES.	Sun or Star.	Latitude.	Remarks.
April 3	Mahomedabad,	α Hydræ.	27 18 8	Clear. Moderate.
May 29	Cawab, Mr. BECHER's Bungalow,	α η	26 51 6	Do. Do.
30	Ditto, Do.	Do.	26 51 6	Do. Do.
	Ditto, Do.	α Draconis	26 50 47	Do. Do.
31	Poorab, N. 68 W. 4 Fs.	α η	26 44 5	Do. Do.
June 1	Chobepoor,	α η	26 36 41	Do. Do.
2	Kanbpoor, Mr. YELD's Bungalow,	α η	26 28 37	Do. Do.
5	Ditto, Do.	α η	26 27 56	Do. Windy.
12	Oenam, S. W. 3 Fs.	Do.	26 33 26	Do. Moderate.
13	Jelooter, Fort N. 53 W. 7, 7 Fs.	Do.	26 41 57	Do. Windy.
14	Noel-Gunge, Gate S. 20 W. 2 Fs.	Do.	26 47 42	Do. Moderate.
Sept. 4	Meab Gunge (near Jelooter) West Gate } No. 1, 75 Fs.	α Pisc. Aufst.	26 38 4	Do. Calm.
11	Kanbpoor, Mr. Yeld's Bungalow.	Do.	26 28 33	Do. Do.
15	Ditto, Do.	Do.	26 28 56	Do. Moderate.
16	Rampoor, near Mufwafee.	Do.	26 30 49	Do. Do.
Oct. 17	Efewun, S. 70 E. 4, 1 F.	⊙ M. A.	26 48 50	Do. Do.
18	Aterdbinee, N. 42 W. 6 Fs.	Do.	26 50 48	Do. Do.
19	Sultangunge, S. 30 W.—S. 60 E. 1, 9 Fs.	Do.	26 58 46	Do. Light Breeze.
20	Purerab, South-east angle S. 30 W. 4, 4 } Fs.	Do.	27 7 16	Do. Calm.
21	Lihkireepoor, S.—S. 34 E. 1, 2 Fs.	Do.	27 1 39	Do. Moderate.
22	Meerin-ca-feray, S. E. 1 F.	Do.	27 1 59	Do. Do.
23	Sumjum, north end of Gunge.	Do.	27 8 27	Do. Do.

A DISSERTATION ON SEMIRAMIS, THE ORIGIN OF MECCA, &c.

FROM THE HINDU SACRED BOOKS.

By Lieut. FRANCIS WILFORD.

IN the *Scānda-purāna* and *Vis'va-sāra pracāsa*, or declaration of what is most excellent in the world, we find the following legends, which have an evident relation to the origin of *Semiramis*, the *Syrian dove*, *Ninus*, and the building of *Niniveh*, *Hierapolis*, and *Mecca*, &c.

MAHA'-DE'VA and his consort PA'RVATI, with a view to do good to mankind, quitted their divine abode on *Cailasa*, and proceeding towards the north, alighted on the summit of the *Nishāda* mountains, where they found the *Devātas* ready to receive them, with a numerous retinue of Celestial Nymphs, and Heavenly Quiristers. MAHA'-DE'VA was so struck with the beauty of some of the *Apśaras*, and his looks were so expressive of his internal raptures, that PA'RVATI, unable to

conceal

conceal her indignation, uttered the most virulent reproaches against him. Conscious of the impropriety of his behaviour, MAHA'-DE'VA used every endeavour to pacify her; he humbled himself; he praised her, and addressed her by the flattering appellation of MAHA'-BHA'GA; but to no purpose. She fled into *Cusba-duip*, on the mountains of *Vabni-vyápta*, and seating herself in the hollow trunk of a *Samì*-tree, performed *Tapasyà* (or austere devotion) for the space of nine years; when fire springing from her, pervaded with rapid violence the whole range of mountains, in so much, that men and animals were terrified, and fled with the utmost precipitation. DE'VI, unwilling that her devotion should prove a cause of distress to the animal creation, recalled the sacred flame, and confined it in the *Samì*-tree. She made the hollow of that tree her place of abode and dalliance; and hence she is called SAMI-RA'MA', or she who dallies in the *Samì*-tree.

The fugitives returning, performed the *Pujà* in adoration of her, with songs in her praise. The flame confined in the *Samì*-tree still remains in it; and the *Devátas* are highly delighted with the fire, which is lighted from the *Araní* (or cubic wood of that tree). The *Araní* is the mother of fire, and is produced from the *Samì*-tree. From that time, this sacred tree gives an increase of virtue, and bestows wealth and corn. In the month of *As'wina*, or *Cooar*, the tenth of the first fifteen days of the moon is kept holy, and *Pujà* is made to SAMI-RA'MA' and to the *Samì*-tree; and those who perform it obtain the object of their desires. This sacred rite I have hitherto kept concealed from the world, says MAHA'-DE'VA, but now I make it known for the good of mankind; and whosoever performs it will be victorious over his enemies for the space of one year.

During these transactions, VI'SVE'SWARA-MAHA'-DE'VA, or CA'SI'-PATI (that is to say), MAHA'-DE'VA, the lord of the world and sovereign of *Cás'i* or *Benares*) visited the country of PURUSHOTAMA, in *Utcòla-désa* or *Orissa*; which he was surprized to find overspread with long grass, and without inhabitants. He resolved to destroy the long grass, and for this purpose, assuming the diminutive shape of a dove, with an angry countenance, commenced the performance *Tapasyà*; his consort DE'VI' also transformed herself into a bird of the same species; and from that time they were known to mankind, and worshipped under the titles of CAPO'TE'SWARA and CAPO'TE'SI' or ISWARA and ISI', in the shape of a dove. They set fire to the *Cusba*, or long grass, and the country became like *Vindra-van* near (*Muttra*) and was soon filled with inhabitants. The spot where they performed their *Tapasyà*, is called to this day *Capóta-s'bhali*, or the place

place of the dove. It is a celebrated place of worship, and, as I am informed, about five cofs from *Jagannát'ba*.

Almost the whole universe was likewise at this time overspread with long grafs; and to destroy it, MAHA'-DE'VA, with his consort, resolved to travel round the world. They accordingly proceeded into *Cusba-duíp*, which they found thinly inhabited by a few *Mlech'bas*, or impure tribes, and the *Yavanas*, who concealed their booty in the grafs which covered the country.

MAHA'-DE'VA took compassion on them, and considering their sufferings in this inhospitable country as a sort of *Tapasyá*, he resolved to bestow *Mócsha*, or eternal blifs, on them: for this purpose he assumed the character and countenance of MO'CSHE'SWARA or ISWARA, who bestows *Mócsha*; and directed his consort CAPO'TESI, who is also called *Mahá-bhága*, to go to *Vabni-ft'bán*, on the borders of *Cusba-duípa*; there to make *Tapasyà*, in order to destroy the long grafs. Accordingly she went into *Vabni-ft'bán*; and that she might effect it without trouble to herself, she assumed another form: from which circumstance she was named ANA'-YA'SA'. In this character she seated herself on a beautiful hill, and there made *Tapasyà* for many days. At last fire sprung from her devotion, and its presiding power standing before her, she directed him to destroy the *Cusba*; when the hills were soon in a blaze, and the *Yavanas* and other *Mlech'bas* obtaining *Mócsha*, were reunited to the Supreme Being, without labour or effect on their part; that is to say, they were involved in the general conflagration and destroyed.

When the grafs was consumed, ANA'YA'SA ordered the clouds to gather and pour their waters on the land, which was soon overflowed. The waters then retired, and the four great tribes came into *Cusba-duíp*, where they soon formed a powerful nation, and became rich and happy. After the conflagration, all sorts of metals and precious stones were found throughout the country. The countenance of ANA'YA'SA'-DE'VI is that of fire; and a most divine form it is.

The inhabitants soon after deviating from the paths of rectitude, became like the *Mlech'bas*: and the *Yavanas* re-entered *Cusba-duíp*, plundering and laying waste the whole country. The four tribes applied to ANA'YA'SA', offered praises to her, and requested she would protect them against the *Yavanas*, and dwell among them. MAHA'-BHA'GA assented, and the spot which she chose for her abode, is called *Mahá-bhága-ft'bán*, or the place of MAHA'-BHA'GA'.

In the mean time MAHA'-DE'VA was at *Mócsha-ft'bán*, or *Mócshéfa*, bestowing *Mócsha* on all who came to worship there. It is a most holy place; and there

MAHA'-

MAHA'-DE'VA laid aside the countenance and shape of CAPOTE'SWARA, and assumed that of MOC'SHE'WARA.

Among the first votaries of MAHA'-DE'VA, who repaired to *Móc'sha-ft'bán*, was VI'RASE'NA, the son of GUHYACA. He had been making *Tapasyà* for a long time, in honour of MAHA'-DE'VA, who at last appeared to him, and made him king over *St'bávaras*, or the immoveable part of the creation. Hence he was called ST'HA'-VARA-PATI; and the hills, trees, plants, and grasses of every kind were ordered to obey him. His native country was near the sea; and he began his reign with repressing the wicked, and insisting on all his subjects walking in the paths of justice and rectitude. In order to make his sovereign acknowledged throughout the world, he put himself at the head of a numerous army; and directing his course towards the north, he arrived at *Móc'sha-ft'bán*, where he performed the *Pujà* in honour of MO'CSHE'SWARA, according to the rites prescribed in the sacred books. From *Móc'shésa* he advanced towards the *Agni-párvatas*, or fire-mountains, in *Vabnist'bán*; but they refused to meet him with presents, and to pay tribute to him. Incensed at their insolence, ST'HA'VAR-PATI resolved to destroy them; the officers on the part of SAMI'-RA'MA', the sovereign of *Vabnist'bán*, assembled all their troops, and met the army of ST'HA'VAR-PATI; but after a bloody conflict, they were put to flight.

SAMI'-RA'MA' amazed, enquired who this new conqueror was; and soon reflected that he could never have prevailed against her, without a boon from MAHA'-DE'VA, obtained by the means of what is called *Ugra-Tapasyá*, or a *Tapasyá* performed with fervor, earnestness of desire, and anger. She had a conference with ST'HA'VAR-PATI; and as he was, through his *Tapasyá*, become a son of MAHA'-DE'VA, she told him she considered him in that light, and would allow him to command over all the hills, trees, and plants in *Vabni-ft'bán*. The hills then humbled themselves before ST'HA'VAR-PATI, and paid tribute to him.

The origin of NINUS is thus related in the same sacred books. One day, as MAHA'-DE'VA was rambling over the earth naked, and with a large club in his hand, he chanced to pass near the spot where several *Munis* were performing their devotions. MAHA'-DE'VA laughed at them, insulted them in the most provoking and indecent terms; and lest his expressions should not be forcible enough, he accompanied the whole with significant signs and gestures. The offended *Munis* cursed him, and the *Linga* or *Phallus* fell to the ground. MAHA'-DE'VA, in this state of mutilation, travelled over the world, bewailing his misfortune. His con-
fort

fort too, hearing of this accident, gave herself up to grief, and ran after him in a state of distraction, repeating mournful songs. This is what the *Greek* mythologists called the Wanderings of DEMETER, and the Lamentations of BACCHUS.

The world being thus deprived of its vivifying principle, generation and vegetation were at a stand; Gods and men were alarmed; but having discovered the cause of it, they all went in search of the sacred *Linga*; and at last found it grown to an immense size, and endowed with life and motion.

Having worshipped the sacred pledge, they cut it, with hatchets, into one-and-thirty pieces, which *Polypus*-like, soon became perfect *Lingas*. The *Devatas* left one-and-twenty of them on earth; carried nine into Heaven, and removed one into the inferior regions, for the benefit of the inhabitants of the three worlds. One of these *Lingas* was erected on the banks of the *Cumud-vati*, or *Euphrates*, under the name of BA'LE'SWARA-LINGA, or the *Linga* of ISWARA the Infant, who seems to answer to the JUPITER PUER of the western mythologists. To satisfy DE'VI, and restore all things to their former situation, MAHA'-DE'VA' was born again in the character of BALE'SWA'RA, or ISWARA the Infant. BALE'SWA'RA, who fosters and preserves all, though a child, was of uncommon strength; he had a beautiful countenance; his manners were most engaging; and his only wish was to please every body; in which he succeeded effectually; but his subjects waited with impatience till he came to the age of maturity, that he might bless them with an heir to his virtues. BALE'SWA'RA, to please them, threw off his childlike appearance, and suddenly became a man, under the title of LI'LE'SWARA, or ISWARA, who gives pleasure and delight. He then began to reign over Gods and men, with the strictest adherence to justice and equity: his subjects were happy, and the women beheld with extacy his noble and manly appearance. With the view of doing good to mankind, he put himself at the head of a powerful army, and conquered many distant countries, destroying the wicked, and all oppressors. He had the happiness of his subjects and of mankind in general so much at heart, that he entirely neglected every other pursuit. His indifference for the female sex alarmed his subjects: he endeavoured to please them; but his embraces were fruitless. This is termed *Aśc'balana* in *Sanscrit*; and the place where this happened was in consequence denominated *Aśc'balanśt'hán*. The *Apśaras*, or celestial nymphs, tried in vain the effect of their charms. At last SAMI-RA'MA' came to *Aśc'balanśt'hán*, and retiring into a solitary place in its vicinity, chanted her own metamorphoses and those of LI'LE'SWARA, who happening to pass by,

was

was so delighted with the sweetness of her voice, that he went to her and enquired who she was. She related to him how they went together into *Utoladéfa* in the characters of the CAPO'TESWARA and CAPOTE'SI: adding, you appeared then as MOCSHE'SWA'RA, and I became ANAY'ASA; you are now *Liléswara*, and I am *Samì-Ramà*, but I shall be soon *Liléswarì*. LI'LE'SWARA, being under the influence of MA'YA, or worldly illusion, did not recollect any of these transactions; but suspecting that the person he was speaking to might be a manifestation of PA'R-VATI, he thought it advisable to marry her; and having obtained her consent, he seized her hand, and led her to the performance of the nuptial ceremony, to the universal satisfaction of his subjects. Gods and men met to solemnize this happy union; and the celestial nymphs and heavenly quiriſters graced it with their presence. Thus SAMI-RA'MA' and LI'LE'SWARA commenced their reign, to the general satisfaction of mankind, who were happy under their virtuous administration.

From that period the three worlds began to know and worship LI'LE'SWARA, who after he had conquered the universe, returned into *Cuſha-duipa*. LI'LE'SWARA having married SAMI-RA'MA', lived constantly with her, and followed her wherever she chose to go: in whatever pursuits and pastimes she delighted, in these alone he took pleasure; thus they travelled over hills and through forests to distant countries; but at last returned to *Cuſha-duip*: and SAMI-RA'MA' seeing a delightful grove near the *Hradancità* (or deep water) with a small river of the same name, expressed a wish that he would fix the place of their residence in this beautiful spot, there to spend their days in pleasure.

This place became famous afterwards, under the name of *Lila-ſt'hán*, or the place of delight. The water of the *Hradancità* is very limpid and abounds with *Camala*-flowers, or *red Lotos*.

SAMI-RA'MA' is obviously the SEMIRAMIS of the western mythologists, whose appellation is derived from the *Sanscrit* SAMI-RA'ME'SI', or ISI' (*Ifis*) dallying in the *Samì*, or Fir-tree. The title of SAMI'-RAME'SI is not to be found in the *Puránás*; but it is more grammatical than the other; and it is absolutely necessary to suppose the word ISI' or ESI in composition, in order to make it intelligible.

DIODORUS SICULUS * informs us that she was born at *Ascalon*: the *Puránás*,

* DIODORUS SICULUS, lib. 3. cap. 2.

that her first appearance in *Syria* was at *Aś'balana-ś'hán*, or the place where *LÍLÉSIA* or *NINUS* had *Aś'balana*.

The defeat of *SEMIRAMIS* by *STAUROBATES*, is recorded in the *Puránás* with still more extravagant circumstances; for *STAUROBATES* is obviously *ST'HA'VARA-PATI*, or *ST'HA'WARA-PATI*, as it is more generally pronounced.

The places of worship mentioned in the above legends are *Mócshéśa* or *Mócsha-ś'hán*, *Aś'hala-ś'hán* or *Aś'halana-ś'hán*, two places of the name of *Lila-ś'hán* or *Lilésa-ś'hán*, *Anáyáśá-dévi-ś'hán* and *Mahá-bhágá-ś'hán*.

The *Bráhmens* in the western parts of *India*, insist that *Mócsha-ś'hán* is the present town of *Mecca*. The word *Mócsha* is always pronounced in the vulgar dialects, either *Moca* or *Muśta*; and the author of the *Dabijthan* says, its ancient name was *Maca*. We find it called *Maco Raba*, by *PTOLEMY*, or *MOCA the Great* or *Illustrious*. *GUY PATIN* mentions a medal of *ANTONINUS PIUS* with this legend, "MOK. IEP. AXI. ATTO." which he very properly translates *Moca, sacra, inviolabilis, suis utens legibus*, "*Moca the holy, the inviolable, and using her own laws.*" This, in my humble opinion, is applicable only to *Mecca*, or *Mócsha-ś'hán*, which the *Puránás* describe as a most holy place. The *Arabian* authors unanimously confirm the truth of the above legend; and it is ridiculous to apply it to an obscure and insignificant place in *Arabia Petrea*, called also *Moca*. It may be objected, that it does not appear that *Mecca* was ever a *Roman* colony. I do not believe it ever was; but at the same time it was possible that some connection for commercial purposes might have existed between the rulers of *Mecca* and the *Romans* in *Egypt*. The learned are not ignorant that the *Romans* boasted a little too much of their progress in *Arabia*; and even medals were struck with no other view, apparently, but to impose on the multitude at *Rome*. It is unfortunate that we do not meet in the *Puránás* with the necessary *data* to ascertain, beyond doubt, the situation of *Mocsha*. From the particulars contained in them, however, it appears to have been situated a great way to the westward, with respect to *India*, and not from *Egypt* and *Ethiopia*, as has been shewn in a former dissertation on these countries, and in the third volume of the *Asiatick Researches*.

It is declared in the *Puránás* that *CAPO'TE'SWARA* and his consort *CAPO TE'SI*, in the shape of two doves, remained there for some time; and *Arabian* authors inform us, that in the time of *MOHAMMED*, there was in the temple of *Mecca* a pigeon carved in wood, and another above this: to destroy which *MOHAMMED* lifted *ALI* upon his shoulders. These pigeons were most probably placed there

in

in commemoration of the arrival of MAHA'-DE'VA and DE'VI, in the shape of two doves.

The worship of the dove seems to have been peculiar to *India, Arabia, Syria*, &c. We read of SEMIRAMIS being fed by doves in the desert; and of her vanishing at last from the sight of men, in the shape of a dove; and according to the *Puránás*, CAPO'TE'SI, or the dove, was but a manifestation of SAMI-RA'MA'.

The dove seems to have been in former times the device of the *Affyrian*, as the eagle was of the *Roman* empire; for we read in ISAIAH *, “ And the inhabitants of this country shall say in that day, such was our expectation! behold whither we wanted to fly for help from the face of the dove; but how could we have escaped?”

I have adhered chiefly to the translation of TREMELLIUS, which appears the most literal, and to be more expressive of the idea which the prophet wished to convey to the *Jews*, who wanted to fly to *Egypt* and *Ethiopia*, to avoid falling into the hands of the *Affyrians*; but were to be disappointed by the fall of these two empires.

All commentators have unanimously understood *Affyria* by the *Dove*, and have translated the above passage accordingly. CAPO'TE'SI, or the *Affyrian Dove*, was also mentioned in a song, current in these countries, and which seems to refer to some misfortune that had befallen the *Affyrians*. The 56th Psalm is directed to be sung to the tune of that song, which was known to every body; and for this purpose the first verse, as usual, is inserted. “ *The dove of distant countries is now struck dumb.*”

The *Hindus* further insist, that the *black stone* in the wall of the *Caaba*, is no other than the *Linga* or *Phallus* of MAHA'-DEVA'; and that when the *Caaba* was rebuilt by MOHAMMED (as they affirm it to have been), it was placed in the wall, out of contempt; but the new converted pilgrims would not give up the worship of the *black stone*; and sinister portents forced the ministers of the new religion to connive at it. *Arabian* authors also inform us that *stones* were worshipped all over *Arabia*, particularly at *Mecca*; and AL-SHAHRESTANI † says, that the temple at *Mecca* was dedicated to ZOHAL or KYEVUN, who is the same with SATURN. The author of the *Dabistan* declares positively that the *Hejar al aswad*,

* ISAIAH, cap. XX. in fine.

† SALE'S *Koran*.

or the *black stone*, was the image of KYEVUN. Though these accounts somewhat differ from those in the *Puránás*, yet they shew that this *black stone* was the object of an idolatrous worship from the most remote times.

The *Mussulmans*, in order to palliate their idolatry towards it, have contrived other legends. KYEVUN is the CHYUN of Scripture, also called REMPHAN, which is interpreted the *God of Time*. If so, CHYUN, or KYEVUN, must be MAHA'-DE'VA, called also MAHA'-CA'LA, a denomination of the same import with REMPHAN; the *Egyptians* called HORUS, the lord of time; and HORUS is the same with HARA, or MAHA'-DE'VA *.

The reason of this tradition is, that the *Sabians*, who worshipped the seven planets, seem to have considered SATURN as the lord of time, on account of the length of its periodical revolution; and it appears from the *Dabisthan*, that some ancient tribes in *Persia* had contrived a cycle of years, consisting of the revolution of SATURN repeatedly multiplied by itself.

ASC'HALA-ST'HA'N, or *Asc'halana-st'bán*, is obviously *Ascalon*; there SEMIRAMIS was born, according to DIODORUS SICULUS, or, according to the *Puránás*, there she made her first appearance.

MAHA'-BHA'GA'-ST'HA'N, is the *st'bán* or place of SAMI'-RA'MA', in the characters of MAHA'-BHA'GA', or the great and prosperous goddess. This implies also that she bestowed greatness and prosperity to her votaries.

We cannot but suppose that the *st'ban* of MAHA'-BHA'GA' is the ancient town of *Mabog* called now *Menbigz* and *Menbig*; the *Greeks* called it *Hierapolis*, or the holy city: it was a place of great antiquity; and there was a famous temple dedicated to the *Syrian* goddess, whose statue of gold was placed in the center, between those of JUPITER and JUNO. It had a golden dove on its head; hence some supposed it was designed for SEMIRAMIS, and it was twice every year carried to the sea side in procession. This statue was obviously that of the great goddess, or MAHA'BHA'GA'-DEVI', whose history is intimately connected with that of the *Dove* in the western mythologists, as well as in the *Puránás*.

An ancient author † thus relates her origin: “dicitur et *Euphratis* fluvio ovum “piscis *Columba* adfedisſe dies plurimos, et excluſiſſe *Deam benignam* et misericordem hominibus ad *bonam vitam*.” “It is related that a *Dove* hatched the egg

* See Dissertation on *Egypt*, &c. in the third volume of the *Asiatick Researches*.

† LUCIUS AMPELIUS ad MACRIN.

“ of a fish, near the *Euphrates*, and that after many days of incubation came forth
 “ the Goddess, merciful and propitious to men, on whom she bestows eternal bliss.”
 Others say that fishes rolled an egg upon dry land, where it was hatched by a
Dove, after which appeared the Syrian Goddess.

Her origin is thus related in the *Purānds*: the *Yavanas* having for a long time vexed the inhabitants of *Cusha-duip*, they at last applied for protection to MA'HA'-BHA'GA'-DE'VI, who had already appeared in that country in the characters of SAMI-RA'MA' and CAPOTE'SI', or ISI', in the shape of a *Dove*; they requested also that she would vouchsafe to reside amongst them. The merciful Goddess granted their request; and the place where she made her abode was called the *st'-bán*, or place of *Māhá-bhágá*.

The Syrian name of *Mabog* is obviously derived from MAHA'-BHA'GA'. This contraction is not uncommon in the western dialects, derived from the *Sanscrit*; and HESYCHIUS informs us that the Greeks pronounced the *Hindu* word *Mabá* great, *Mai*. *Mabog* is mentioned by PLINY, were we read *Magog*; but Mr. DANVILLE shews that it should be *Mabog*: I conclude from some manuscript copies. This is also confirmed by its present name, which is to this day *Manbig* or *Manbeg*. We find it also called *Bambukeh* (Βαμβυκη) *Bambyce*; and in NIEBUHR'S Travels it is called *Bombädsche*: I suppose for *Bombäksche* or *Mombigz*: but this is equally corrupted from *Ma'ábhágá*. In the same manner we say *Bombay* for *Momba*; and what is called in *India* *Bambu* or *Pambu*, is called *Mambu* in *Thibet*.

The temple of *Mabog* was frequented by all nations; and amongst them were pilgrims from *India*, according to LUCIAN, as cited by the author of the *Ancient Universal History*.

MABOG, or *Hierapolis*, was called also *Old Ninus*, or *Niniveh*, according to AMMIANUS MARCELLINUS, and PHILOSTRATUS: and there is no mistake in DIODORUS SICULUS and CTESIUS, when they assert that there was a town called *Niniveh* near the *Euphrates*. Scripture also seems to place *Niniveh* thereabout; for it is said that *Rezen*, was between *Niniveh* and *Calach*. And the situation of *Rezen*, called also *Resaina*, by ancient authors, and *Razain* by the moderns, is well known, as well as that of *Calach* on the banks of the *Lycus*, now the *Zab*, to the eastward of the *Tigris*. *Niniveh*, of course, must have been to the westward of these two places, and falls where the *Old Ninus* is pointed out by AMMIANUS, PHILOSTRATUS, &c.

Two places of that name are mentioned in the *Purānds*, under the name of
Lilaji'bán,

Lilast' bân, the *st' bân* or place of LI'LE'SA or NINUS. There can be no doubt, in my humble opinion, of their identity; for SAMI'-RA'MA' is obviously SEMIRAMIS. NINUS was the son of BELUS, and, according to the *Puránás* LI'LE'SA sprung from BA'LE'SWARA, or BALESA; for both denominations, being perfectly synonymous, are indifferently used in the *Puránás*.

NINIVEH on the *Tigris*, seems to be the *st' bân* of LI'LE'SA, where he laid aside the shape and countenance of BA'LE'SA, and assumed that of LI'LE'SA. The other place of LILESA, which SAMI'-RA'MA', delighted with the beauty of the spot, chose for the place of her residence, is *Hierapolis*, called also *Ninus* or *Nineveh*; hence we find her statue in the temple of MAHA'-BHA'GA'. It is said to have been situated near a deep pool, or small lake, called from that circumstance *Hradancitâ*; and the pool near the temple of *Hierapolis* was described to be two hundred fathoms deep. SAMI'-RA'MA is represented in a most amiable light in the *Puránás*, as well as her consort LILE'SWARA, or LILE'SA.

STEPHANUS of *Byzantium* says that NINUS lived at a place called *Telané*, previous to his building *Niniveh*; but this place, I believe, is not mentioned by any other author.

NINUS is with good reason supposed to be the ASSUR of Scripture, who built *Niniveh*; and ASSUR is obviously the IS'WARA of the *Puránás*, with the title of LI'LE'SWARA, LI'LESA, or NINUS. The word IS'WARA, though generally applied to deities, is also given in the *Puránás* to Kings; it signifies *Lord* and *Sovereign*.

With respect to the monstrous origin of BE'LE'SA, and the thirty-one *Phalli*; my *Pandit*, who is an astronomer, suspects it to be an attempt to reconcile the course of the moon to that of the sun, by dividing the synodical revolution into thirty-one parts, which may represent also three hundred and ten years. As this correction is now disused, he could give me no further information concerning it. To the event related is ascribed the origin of the *Linga* or *Phallus*, and of its worship: it is said to have happened on the banks of the *Cumud-vati*, or *Euphrates*; and the first *Phallus*, under the name of *Baleswara-Linga*, was erected on its banks. This is confirmed by DIODORUS SICULUS, who says that SEMIRAMIS brought an *Obelisk* from the mountains of *Armenia*, and erected it in the most conspicuous part of *Babylon*: it was 150 feet high, and is reckoned, by some author, as one of the seven wonders of the world *. The *Jews* in their *Talmud* allude to something of

* DIOD. SIC. lib. 3. cap. 4.

this kind; speaking of the different sorts of earths, of which the body of ADAM was formed, they say that the earth which composed his generative parts, was brought from *Babylonia*.

The next place of worship is the *st'han* of ANA'YA'SA-DE'VA': this is obviously the ἱερον τῆς Αναίας (*Heiron tes Anaias*) of Strabo, or the temple of the goddess ANAIA, or ANAIAS, with its burning spring of ΝΑΡΗΘΑ. They are upon a hillock, called *Corcura* by the antients, and now known by the name of *Corcoor*: it is near *Kerkook*, and to the eastward of the *Tigris*. To this day it is visited by pilgrims from *India*; and I have been fortunate enough to meet with four or five who had paid their devotions in this holy place. I consulted them separately, and their accounts were as satisfactory as could be expected. They call it *ḡulá-muc'bí*, or the flaming mouth.

This conflagration is minutely described by DIODORUS SICULUS*, who says, that in former times a monster called ALCIDA, who vomited flames, appeared in *Phrygia*; hence spreading along mount *Taurus*, the conflagration burnt down all the woods, as far as *India*: then with a retrograde course, swept the forests of mount *Liban*, and extended as far as *Egypt* and *Africa*: at last a stop was put to it by MINERVA.

The *Phrygians* remembered well this conflagration and the flood which followed it; but as they could not conceive that it could originate from a benevolent Goddess, they transformed her into a monster, called ALCIDA. *Alcida* however is an old *Greek* word, implying strength and power, and is therefore synonymous with *Sácá* or *Sácta-devi*, the principal form of SA'MI'-RA'MA', and other manifestations of the female power of nature.

Indeed the names and titles of most of the *Babylonian* deities are pure *Sanscrit*: and many of them are worshipped to this day in *India*, or at least their legends are to be found in the *Puránás*.

Thus SEMIRAMIS is derived from *Samí-Ráméśi*, or *Sámí-Ramá*, and *Samí-Rámá-dévi*.

MILITTA from *Militia-Devi*, because she brings people together (*Connuba*).

SHACKA, or *Saca*, is from the *Sanscrit* *Sácta-dévi*, pronounced *Sácá* in the vulgar dialects: it implies strength and power.

SLAMBA, or *Salambo*, is from *Sarwámbá*, often pronounced *Salwámbá*: it

* DIOD. SIC. lib. 4. cap. 5.

signifies

signifies the mother of all: and she is the *Magna Mater* of the western mythologists.

DE'VI is called also *Antargati*, or *Antargatá*, because she resides within the body, or in the heart, and thereby gives strength and courage. This is the Goddess of Victory in *India*, and they have no other: it is declared in the *Puráns*, that she was called A'NTRAST'HI (a title of the same import with the former) in the forests of *Viśhála-van*, on the banks of the river *Tamasa*, in *Chándra-duíp*: from *Antrast'hi* the old Britons, or rather the Romans, made *Andraſte*.

The *Babylonian* Goddess was called also the *Queen of Heaven*; and to this day a form of DEVI, with the title of *Sverga rádni-dévi*, or DEVI, *Queen of Heaven*, is worshipped in *India*.

RHEA is from *Hriyá-devi*, or the bashful or modest Goddess.

RAKH is from *Rácéſwara*: a name of LUNUS, from one of his favourite wives called *Raca*: it signifies also the full orb of the Moon.

NABO, or NEBO, is I'SWARA, with the title of *Nava*, or *Naba*, the celestial.

NARGAL is from *Anargaléſwara*; that is, he who is independent.

ADRAM-MELECH is from *A'dbarm-eſwara*; for I'SWARA and MELECH, in the *Chaldean* language, are synonymous.

ADHARME'SWARA is thus called, because he punishes those who deviate from the paths of justice and rectitude.

ANAM-MELECH is from *Anam-éſwara* or I'SWARA, who, though above all, behaves to all with meekness and affability.

NIMROD is from *Nima-Rudra*, because RUDRA or MAHA'-DE'VA gave him half of his own strength.

VAHNI-ST'HA'N, called also *Agni-ſt'hán*, is said in some *Puráns* to be in *Cuſha-duíp*; and in others, to be on the borders of it. It includes all the mountainous country from *Phrygia* to *Herat*. *Vabni-ſt'hán* and *Agni-ſt'hán* are denominations of the same import, and signify the country or seat of fire, from the numerous volcanoes and burning springs which are to be found all along this extensive range of mountains. The present *Azar-Báiján* is part of it, and may be called *Vabni-ſt'hán* proper. *Azar*, in the old *Persian*, signifies fire; and *Báiján*, a mine or spring. This information was given to me by Mr. DUNCAN, resident of *Benares*, who was so kind as to consult on this subject with MEHDI-ALI-KHA'N, one of the *Aumils* of the *Zemindary* of *Benares*. He is a native of *Khorassan*, and well acquainted with the antiquities of his own country, and of *Iran* in general. According to him,

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the principal *Báiján*, or spring of fire, is a place called *Baut-Cubeh**, in *Azar-Báiján*. *Vabni-st'bán* is called also *Vabni-vyápata*, from the immense quantity of fire collected in that country. There are many places of worship remaining throughout *Iran*, still resorted to by devout pilgrims. The principal are *Balk* and the *Pyræum*, near *Herat*. *Hingláz*, or *Ancloojé*, near the sea, and about eighty miles from the mouth of the *Indus*: it is now deserted; but there remain twenty-four temples of *BHAVA'NI*. This place, however, is seldom visited, on account of the difficulties attending the journey to it.

GANGA'WA'Z, near *Congo*, on the *Persian Gulph*, another place of pilgrimage, where are many caves, with springs in the mountains.

The *st'bán* of *CALYA'NA-RA'YA* and *GOVINDA-RA'YA*, two incarnations of *VISHNU*, is in the center of *Buffora*, on the banks of the *Euphrates*; and there are two statues carefully concealed from the sight of the *Mussulmans*.

ANA'YA'SA'-DE'VI-ST'HA'N has been already mentioned; and the great *Judlá-muc'bi* is the designation of the springs of *Naphtba*, near *Baku*.

There is also another *Hindu* place of worship at *Babarein* (*El Katif*) and another at *Astrachan*, where the few *Hindus* who live there worship the *Volga*, under the name of *SU'RYA-MUC'HI'-GANGA*; the legends relating to this famous river are to be found in the *Puránás*, and confirm the information of the pilgrims who have visited these holy places. There are still many *Hindus* dispersed through that immense country; they are unknown to the *Mussulmans*; and they pass for *Guebris*, as they call them here, or *Parfis*. There is now at *Benares* a *Bráhma*n of the name of *DE'VI-DAS*, who is a native of *Mesched*; he was introduced lately to my acquaintance by Mr. *DUNCAN*; and he informed me that it was supposed there were about 2000 families of *Hindus* in *Khorassán*; that they called themselves *Hindi*, and are known to the *Mussulmans* of the country under that appellation.

This, in my opinion, accounts for the whole country to the south of the *Caspian* sea, from *Khorassán* and *Arrokbage*, as far as the *Black Sea*, being called *India* by the antients; and its inhabitants in various places *Sindi*: it is implicitly confirmed by the *Puránás*, in which it is said that the *Súrya-muc'bi-Gángá*, or *Volga*, falls into the *Sea of Sind*. The *Hindus* near *Baku* and at *Astrachan*, call it the *new sea*, because they say it did not exist formerly. They have legends about it, which, however, my learned friend *VIDHYA'-NA'TH* could not find in the *Puránás*.

According to the pilgrims I have consulted, there are about twenty or thirty

* It is vulgarly called *Baku*.

families of *Hindus* at *Balk*; and EUSEBIUS informs us, that there were *Hindus* in *Bactriana* in his time. There are as many families at *Gángáwáz*, or *Congo*; about one hundred at *Buffora*; and a few at *Babarein*: these informed PURA'NA'-PURI, a *Róyi* and famous traveller, called also URD'HWABA'HU, because he always keeps his hands elevated above his head, that formerly they corresponded and traded with other *Hindus* on the banks of the river *Níla*, in the country of *Misr*; and that they had once a house or factory at *Cairo*; but that, on account of the oppression of the *Turks* and the roving *Arabs*, there had been no intercourse between them for several generations. There are no *Hindus* at *Anáyásádévì*, or *Corcoor*; but they compute a large number in the vicinity of *Baku*, and *Derbend*. The *Shroffs* at *Sámákhi* are *Banyans* or *Hindus*, according to the Dictionary of Commerce, and of *Trevoux*, as cited in the *French Encyclopædia**.

The *Cubánis* who live near *Derbend*, are *Hindus*, as my friend PURANA-PURI was told at *Baku* and *Astrachan*, in his way to *Moscow*; and their *Bráhmens* are said to be very learned; but, as he very properly observed, this ought to be understood relatively on a comparison with the other *Hindus* in *Persia*, who are extremely ignorant.

His relation is in a great measure confirmed by STRAHLENBERG, who calls them *Cuba* and *Cubatzin*; and says that they live near *Derbend*, and are a distinct people, supposed to be *Jews*, and to speak still the *Hebrew* language.

The *Sanscrit* characters might easily be mistaken for the black *Hebrew* letters by superficial observers, or persons little conversant in subjects of this nature.

The *Araní*, figuratively called the daughter of the SAMI-tree, and the mother of fire, is a cubic piece of wood about five inches in diameter, with a small hole in the upper part. A stick of the same sort of wood is placed in this cavity, and put in motion by a string held by two men, or fixed to a bow. The friction soon produces fire, which is used for all religious purposes, and also for dressing food. Every *Bráhmen* ought to have an *Araní*; and when they cannot procure one from the SAMI'-tree, which is rather scarce in this part of *India*, they make it with the wood of the *Afvatt'ba*, or *Pippála*-tree. This is also a sacred tree, and they distinguish two species of it; the *Pippála*, called in the vulgar dialects *Pipal*, and the *Chalat-palasha*. The leaves of this last are larger, but the fruit is smaller, and not so numerous as in the former species. It is called *Chalat-palasha*, from the tremulous

* Ad vocem *Cheraffs*.

motion of its leaves. It is very common in the hills, and the vulgar name for it is *Pópala*; from which I suppose is derived the *Latin* word *Populus*; for it is certainly the trembling *Poplar* or *Aspen*-tree.

The festival of SEMIRAMIS falls always on the tenth day of the lunar month of *Afwina*, which this year coincided with the fourth of *October*. On this day lamps are lighted in the evening under the *Sami*-tree; offerings are made of rice and flowers, and sometimes strong liquors; the votaries sing the praise of SAMI'-RAMA'-DEVI' and the *Sami*-tree; and having worshipped them, carry away some of the leaves of the tree, and earth from the roots, which they keep carefully in their houses till the return of the festival of SEMIRAMIS in the ensuing year.

ON THE ANDAMAN ISLANDS.

By Lieut. R. H. COLEBROOKE.

THE *Andaman* islands are situated on the eastern side of the bay of *Bengal**, extending from north latitude $10^{\circ} 32'$ to $13^{\circ} 40'$. Their longitude is from $92^{\circ} 6'$ to $92^{\circ} 59'$ east of *Greenwich*. The *Great Andaman*, or that portion of the land hitherto so called, is about one hundred and forty *British* miles in length, but not more than twenty in the broadest parts. Its coasts are indented by several deep bays, affording excellent harbours, and it is intersected by many vast inlets and creeks, one of which has been found to run quite through, and is navigable for small vessels. The *Little Andaman* is the most southerly of the two, and lies within thirty leagues of the island *Carnicobar*. Its length is 28 miles by 17 in breadth, being more compact, but does

* It is perhaps a wonder, that islands so extensive, and lying in the track of so many ships, should have been, till of late years, so little known; that while the countries by which they are almost encircled, have been increasing in population and wealth, having been from time immemorial in a state of a tolerable civilization, these islands should have remained in a state of nature, and their inhabitants plunged in the grossest ignorance and barbarity.

The wild appearance of the country, and the untractable and ferocious disposition of the natives, have been the causes, probably, which have deterred navigators from frequenting them; and they have justly dreaded a shipwreck at the *Andamans* more than the danger of foundering in the ocean; for although it is highly probable, that in the course of time many vessels have been wrecked upon their coasts, an instance does not occur of any of the crews being saved, or of a single person returning to give any account of such a disaster.

not afford any harbour, although tolerable anchorage is found near its shores. The former is surrounded by a great number of smaller islands.

The shores of the main island, and indeed of all the rest, are in some parts rocky, and in a few places are lined with a smooth and sandy beach, where boats may easily land. The interior shores of the bays and creeks are almost invariably lined with mangroves, prickly fern, and a species of wild rattan; while the inland parts are covered with a variety of tall trees, darkened by the intermixture of creepers, parasite plants, and underwood; which form altogether a vast and almost impervious forest, spreading over the whole country. The smaller islands are equally covered with wood; they mostly contain hills of a moderate height, but the main island is distinguished by a mountain of prodigious bulk, called from its shape the Saddle-Peak; it is visible in clear weather at the distance of twenty-five leagues, being nearly two thousand four hundred feet in perpendicular height. There are no rivers of any size upon these islands, but a number of small rills pour down from the mountains affording good water, and exhibiting in their descent over the rocks a variety of little cascades, which are overshadowed by the superincumbent woods.

The soil is various in different parts of these islands*; consisting of black rich mould, white and dark coloured clays, light sandy soil, clay mixed with pebbles of different colours, red and yellow earth; but the black mould is most common. Some white cliffs are met with along the shores, which appear to have been originally clay, with a mixture of sand, hardened by time into the consistence of stone, but might be cut, and would probably answer for building. Near the southern extremity of the great island, where it is mountainous and rocky, some indications of minerals have appeared, particularly of tin. There is also a kind of freestone, containing a yellow shining spar, resembling gold dust. Some of the hills bordering the coasts exhibit blue shistous strata at their bases, with the Brescia or pudding-stone; and some specimens of red ochre have been found, not unlike cinnabar.

The extensive forests with which these islands are over-run, produce a variety of trees fit for building, and many other purposes. The most common are the poon, dammer, and oil-trees; red wood, ebony, cotton-tree, and *buddaum* or almond-tree; soondry, chingry, and bindy; *Alexandrian* laurel, poplar, and a tree

* I am indebted to Major KYD and Captain ARCHIBALD BLAIR for many of the subsequent remarks. The latter was employed by government in surveying these islands, and has the credit of having furnished the first complete and correct Chart of the *Andamans*.

resembling the fattin-wood; bamboos, and plaas, with which the natives make their bows; cutch, affording the extract called *Terra Japonica*; the *Melori*, or *Nicobar* bread-fruit; aloes, ground rattans, and a variety of shrubs. A few fruit-trees have been found in a wild state; but it is remarkable that cocoa nuts, so common in other tropical countries, are here almost unknown. Many of the trees afford timbers and planks fit for the construction of ships, and others might answer for masts. A tree grows here to an enormous size, one having been found to measure thirty feet in circumference, producing a very rich dye, that might be of use in manufactures.

The only quadrupeds yet discovered in these islands are wild hogs, monkeys, and rats. Guanas, and various reptiles abound; among the latter is the green snake, very venomous; centipedes of ten inches long, and scorpions.

A variety of birds are seen in the woods; the most common are pigeons, crows, parroquets, king fishers, curlews, fish-hawks, and owls. A species of humming bird, whose notes are not unlike the cuckoo, is frequently heard in the night.

The principal caverns and recesses, composing part of the coast, give shelter to the birds that build the edible nests: an article of commerce in the *China* market, where they are sold at a very high price. It has been thought that these nests are formed from a glutinous matter exuding from the sides of the caverns where these birds, during their nidification, resort. It is not known whether they emigrate; but the period of their incubation takes place in *December*, and continues till *May*. Not more than two white spotless eggs have been found in their nests; but they have been further supposed to breed monthly.

The harbours and inlets from the sea are plentifully stocked with a variety of fish; such as mullets, soles, pomfret, rock-fish, skate, gurnards, sardinas, roe-balls, sable, shad, aloupe, cockup, grobers, feer-fish, old wives, yellow tails, snappers, devil-fish, cat-fish, prawns, shrimps, cray-fish, and many others: a species resembling the whale, and sharks of an enormous size, are met with. A variety of shell fish are found on the reefs, and in some places oysters of an excellent quality. Of the many madrapores, coralines, zoophites, and shells, none have yet been discovered but such as are found elsewhere.

The *Andaman* islands are inhabited by a race of men the least civilized, perhaps, in the world; being nearer to a state of nature than any people we read of. Their colour is of the darkest hue, their stature in general small, and their aspect uncouth. Their limbs are ill formed and slender, their bellies prominent, and, like
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the *Africans*, they have woolly heads *, thick lips, and flat noses. They go quite naked, the women wearing only at times a kind of tassel, or fringe, round the middle; which is intended merely for ornament, as they do not betray any signs of bashfulness when seen without it. The men are cunning, crafty, and revengeful; and frequently express their aversion to strangers, in a loud and threatening tone of voice, exhibiting various signs of defiance, and expressing their contempt by the most indecent gestures. At other times they appear quiet and docile, with the most insidious intent. They will affect to enter into a friendly conference, when after receiving with a show of humility whatever articles may be presented to them, they set up a shout, and discharge their arrows at the donors. On the appearance of a vessel or boat, they frequently lie in ambush among the trees, and send one of their gang, who is generally the oldest among them, to the water's edge, to endeavour by friendly signs to allure the strangers on shore. Should the crew venture to land without arms, they instantly rush out from their lurking places, and attack them. In these skirmishes they display much resolution, and will sometimes plunge into the water to seize the boat; and they have

* In this respect they differ from all the various tribes inhabiting the continent of *Asia*, or its islands. A story is somewhere told of a ship full of *African* slaves, of both sexes, having been cast away at the *Andamans*; and that having put to death their masters and the ship's crew, they spread themselves over, and peopled the country. This story does not appear to have been well authenticated, nor have I ever met with the particular author who relates it. They have been asserted by some to be cannibals, and by others (*vide* Captain HAMILTON's Voyage, and all the Geographical Dictionaries) to be a harmless and inoffensive people, living chiefly on rice and vegetables. That they are cannibals has never been fully proved, although from their cruel and sanguinary disposition, great voracity, and cunning modes of lying in ambush, there is reason to suspect, that in attacking strangers they are frequently impelled by hunger, as they invariably put to death the unfortunate victims who fall under their hands. No positive instance, however, has been known of their eating the flesh of their enemies; although the bodies of some whom they have killed, have been found mangled and torn. It would be difficult to account for their unremitting hostility to strangers, without ascribing this as the cause, unless the story of their origin, as above mentioned, should be true; in which case they might probably retain a tradition of having once been in a state of slavery. This in some degree would account for the rancour and enmity they shew; and they would naturally wage perpetual war with those whom they might suspect were come to invade their country, or enslave them again.

It would appear that these islands were known to the ancients (see Major RENNEL's Memoirs, introduction, page xxxix). They are mentioned, I believe, by MURCO POLO; and in the ancient accounts of *India* and *China*, by two *Mahomedan* travellers, who went to those parts in the ninth century (translated from the *Arabic* by EUSEBIUS RENAUDOT), may be seen the following curious account. "Beyond these two islands (*Nejabalus*, probably *Nicobars*) lies the sea of *Andaman*; the people on this coast eat human flesh quite raw; their complexion is black, their hair frizzled, their countenance and eyes frightful, their feet are very large and almost a cubit in length, and they go quite naked. They have no embarkations; if they had, they would devour all the passengers they could lay hands on, &c."

been

been known even to discharge their arrows while in the act of swimming. Their mode of life is degrading to human nature, and, like brutes, their whole time is spent in search of food. They have yet made no attempts to cultivate their lands, but live entirely upon what they can pick up, or kill. In the morning they rub their skins with mud, or wallow in it like buffaloes, to prevent the annoyance of insects, and daub their woolly heads with red ochre, or cinnabar. Thus attired, they walk forth to their different occupations. The women bear the greatest part of the drudgery in collecting food, repairing to the reefs at the recess of the tide, to pick up shell-fish, while the men are hunting in the woods, or wading in the water to shoot fish with their bows and arrows. They are very dextrous at this extraordinary mode of fishing, which they practise also at night, by the light of a torch. In their excursions through the woods, a wild hog sometimes rewards their toil, and affords them a more ample repast. They broil their meat or fish over a kind of grid, made of bamboos; but use no salt, or any other seasoning.

The *Andamaners* display at times much colloquial vivacity, and are fond of singing and dancing; in which amusements the women equally participate. Their language is rather smooth than guttural; and their melodies are in the nature of recitative and chorus, not unpleasing. In dancing they may be said to have improved on the strange republican dance asserted by VOLTAIRE to have been exhibited in England: *Où dancant à la ronde, chacun donne des coups de pieds à son voisin, et en recoit autant.* The *Andamaners* likewise dancing in a ring, each alternately kicking and flapping his own breech, *ad libitum*. Their salutation is performed by lifting up a leg, and smacking with their hand the lower part of the thigh.

Their dwellings are the most wretched hovels imaginable. An *Andaman* hut may be considered the rudest, and most imperfect attempt of the human race to procure shelter from the weather, and answers to the idea given by VITRUVIUS, of the buildings erected by the earliest inhabitants of the earth. Three or four sticks are planted in the ground, and fastened together at the top, in the form of a cone, over which a kind of thatch is formed with the branches and leaves of trees. An opening is left on one side, just large enough to creep into; and the ground beneath is strewn with dried leaves, upon which they lie. In these huts are frequently found the skulls of wild hogs, suspended to the roofs.

Their canoes are hollowed out of the trunks of trees by means of fire and instruments

struments of stone, having no iron in use amongst them, except such utensils as they have procured from the *Europeans* and sailors who have lately visited these islands; or from the wrecks of vessels formerly stranded on their coasts. They use also rafts, made of bamboos, to transport themselves across their harbours, or from one island to another. Their arms have already been mentioned in part, I need only add that their bows are remarkably long, and of an uncommon form; their arrows are headed with fish-bones, or the tusks of wild hogs; sometimes merely with a sharp bit of wood, hardened in the fire, but these are sufficiently destructive. They use also a kind of shield; and one or two other weapons have been seen amongst them. Of their implements for fishing, and other purposes, little can be said. Hand-nets of different sizes are used in catching the small fry, and a kind of wicker-basket, which they carry on their backs, serves to deposit whatever articles of food they can pick up. A few specimens of pottery-ware have been seen in these islands.

The climate of the *Andaman* islands is rather milder than in *Bengal*. The prevailing winds are the south-west and north-east monsoons, the former commencing in *May*, and bringing in the rains; which continue to fall with equal, if not greater, violence till *November*. At this time the north-east winds begin to blow, accompanied likewise by showers, but giving place to fair and pleasant weather during the rest of the year. These winds vary but little, and are interrupted only at times by the land and sea-breezes. The tides are regular, the floods setting in from the west, and rising eight feet at the springs, with little variation in different parts. On the north-east coast it is high water at the full and change of the moon at $8^{\circ} 33'$. The variation of the needle is $2^{\circ} 30'$ easterly.

Specimen of the Andaman Language.

<i>Andaman</i> island, or native country	Mincopie	Bamboo,	-	Otallie	Bird,	-	Lohay
Ant,	Ahooda	Bangle,	-	Alai	To bite,	-	Moepaka
Ant, white in its winged state	Doughay	Basket,	-	Tetegay	Boat,	-	Locca
Arrow,	Buttohie	Black,	-	Cheegheooga	Boar,	-	Stohee
Arm,	Pilie	Blood,	-	Cochengohee	Bow,	-	Tongie
Bat,	Vilvila	Bead,	-	Tahee	Bow-string,	-	Geetahie
		To beat,	-	Ingo taheya	Breast,	-	Cah
		Belly,	-	Napoy	Bone,	-	Geetongay
		To bind	-	Totoba oto goley toha			

Charcoal,

Charcoal, - -	Wehee	House, - -	Beday	Road, - -	Echolle
Chin, - -	Pitang			To run, - -	Gohabela
Cold, - -	Choma	Jack fruit, - -	Abay	To scratch, - -	Inkahey aha
Cocoa-nut, - -	Bollatee	Jackall, - - -	Omay	Seed, - - -	Keetongay
Cotton cloth, - -	Pangapee	Iron, or any metal, - -	Dohie	Sheep,* - -	Neena
To cough, - -	Ingotahey	Kiss, - - -	Itolie	Smoke, - - -	Boleence
Crow, - -	Nohay	Knee, - - -	Ingolay	To sing, - -	Gokobay
To cut, - -	Hojeeha,			To sit down, - -	Gongtohee
Door, - -	Tang	To laugh, - -	Onkeomai	Shadow, - - -	Tangtohee
To drink, - -	Meengohee	Leaf of a tree, - -	Tongolie	To sleep, - -	Comoha
Earth, - -	Totongnangee	Leg, - - -	Chigie	To sneeze, - -	Oh cheka
Ear, - -	Quaka			To spit, - - -	Inkahoangy
To eat, - -	Ingelholiah	Man, - - -	Camolan	To swim, - -	Qarah
Elbow, - -	Mohalajabay	Moon, - - -	Tabie	To swallow, - -	Beebay
Eye, - -	Jabay	Musqueto, - -	Hohenangee	Sky, - - -	Madamo
		Mouth, - - -	Morna	Star, - - -	Chelobay
Finger, - - -	Momay			Stone, - - -	Woolay
Fire, - -	Mona	Nail, - - -	Mobejedanga	Sun, - - -	Ahay
Fish, - -	Nabohee	Neck, - - -	Tohie		
Fish-hook - -	Atabea	Net, - - -	Botolee	To take up, - -	Catoha
Flesh, - -	Woohee	Nose, - - -	Mellee	Thigh, - - -	Poye
Foot, - -	Gooke			Teeth, - - -	Mahoy
Friend, - -	Padoo	Paddle, or oar, - -	Mecal	Tongue, - - -	Talie
Frog, - -	Etolay	Pain, - - -	Alooda	Thunder and light- ning, - - -	Maufay- Maccie
		Palm, - - -	Dolai		
Goat, - -	Kokee	Paper, - - -	Pangpoy	To wash, - -	Inga doha
To go, - -	Ooffeema	Pike, - - -	Woobalay	Wasp, - - -	Bohomakee
Grass, - -	Tohobee	To pinch, - -	Ingee Genecha	To walk, - -	Boony-jaoa
		Plantain tree, - -	Chollelee	Water, - - -	Migway
Hair, - -	Ottee	Pot, - - -	Bootchoohie	To weep, - -	Oana-wannah
Hand, - -	Gonie or Monie	To pull, - -	Totobati Gehooa	Wind, - - -	Tomjamay
Head, - -	Tabay			Wood, - - -	Tanghee.
Honey, - -	Lorkay	Rain, - - -	Oye		
Hot, - -	Hooloo	Red, - - -	Gheallop		

* It may appear surprising that they should have names for animals that are not found in their Islands. This circumstance may tend to confirm the story of their origin.

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ON BARREN ISLAND, AND ITS VOLCANO.

By Lieut. R. H. COLEBROOKE.

ABOUT fifteen leagues to the eastward of the *Andaman* islands lies an island which navigators, from its appearance, have justly called *Barren*. On the 12th of May 1787, Captain KYN and myself, being on board the *Trial Snow*, on a voyage to *Pulo Penang*, *Barren Island* in sight, bearing SSW. seven leagues distant, saw a column of smoke ascending from its summit, and by the help of our glasses plainly perceived it to arise from a hill nearly in its center, around which appeared an extensive valley, or crater; but being becalmed, we could not approach nearer to examine it.

The following account of this remarkable island is given by Captain BLAIR, in his report of the Survey of the *Andaman* islands.

“ I left that coast *March* the 21st, and landed on *Barren Island* on the 24th.—
“ The volcano was in a violent state of eruption, bursting out immense volumes of
“ smoke, and frequently showers of red hot stones. Some were of a size to weigh
“ three or four tons, and had been thrown some hundred yards past the foot of the
“ cone. There were two or three eruptions while we were close to it; several of
“ the red hot stones rolled down the sides of the cone, and bounded a considerable
“ way beyond us. The base of the cone is the lowest part of the island, and very
“ little higher than the level of the sea. It arises with an acclivity of $32^{\circ} 17'$ to
“ the height of 1800 feet nearly, which is also the elevation of the other parts of
“ the island.

“ From its present figure, it may be conjectured that the volcano first broke out
“ near the centre of the island, or rather towards the north-west; and in a long
“ process of time by discharging, consuming, and undermining, has brought it to
“ the present very extraordinary form, of which a very correct drawing by Lieu-
“ tenant WALES, will impress a distant idea.

“ Those parts of the island that are distant from the volcano, are thinly covered
“ with withered shrubs and blasted trees. It is situated in latitude $12^{\circ} 15'$ north,
“ and fifteen leagues east of the northernmost island of the *Archipelago**, and may
“ be seen at the distance of twelve leagues in clear weather. A quarter of a mile
“ from the shore, there is no ground with 150 fathoms of line.”

* The easternmost cluster of the *Andaman* islands.

REMARK.

R E M A R K.

FROM the very singular and uncommon appearance of this island, it might be conjectured that it has been thrown up entirely from the sea, by the action of subterranean fire. Perhaps, but a few centuries ago, it had not reared itself above the waves; but might have been gradually emerging from the bottom of the ocean long before it became visible; till at length it reached the surface, when the air would naturally assist the operation of the fire that had been struggling for ages to get vent, and it would then burst forth. The cone or volcano would rapidly increase in bulk, from the continual discharge of lava and combustible matter; and the more violent eruptions which might have ensued at times, when it would throw up its contents to a greater elevation and distance, might have produced that circular and nearly equidistant ridge of land we see around it.

If this conjecture should gain credit, we may suppose not only many islands, but a great portion of the habitable globe, to have been thrown up by volcanos, which are now mostly extinguished. Many hills and islands now clothed with verdure, bear evident marks of having once been in this state. A ground plan of *Barren island* would so exactly resemble some of the lunar spots, as seen through a good telescope when their shadows are strong, that I cannot help thinking there are also many more volcanos in the moon than have yet been discovered by a celebrated modern astronomer *. Those remarkable valleys, or cavities, discernible on her disk, have many of them a single hill in their center, and are surrounded by a circular ridge of a similar appearance.

Query. May not the moon be surrounded by an atmosphere of pure air, which differing essentially in its properties from the atmosphere of our earth, might account for some of the phenomena of her appearance to us? An atmosphere of this sort might be so transparent as not to refract the rays of light in a sensible degree, or to produce the least change in the appearance of a star passing through it when an occultation is observed. At the same time, it would increase in a high degree, the inflammability and combustion of matter, so as to produce volcanos; and if we suppose the moon to have neither seas nor vegetation on her surface, the sun's light would be more strongly reflected than from the earth, where the rays are liable to absorption by water and vegetables.

* HERSCHELL.

Extract from a Diary of a Journey over the Great Desert, from Aleppo to Buffora, in April 1782. Communicated by Sir WILLIAM DUNKIN, and published with a view to direct the attention of future Travellers to the Ruins described in it.

APRIL 16.

SET off at five in the morning; encamped at five in the evening; the day intensely hot; the soil in general sandy; some few shrubs and bushes, but now quite brown, and so dry, that with the least touch they fall to powder; many stalks of lavender and rosemary; and in very dry red sand several scarlet tulips; other sorts new to me, one of a singular kind, in colour and smell like a yellow lupin, but in figure like the cone of a fir tree, from ten to twelve inches long.

After about two hours in this sort of country, the ground appeared more verdant and firm; we then came to some very extraordinary ruins our *Shaikh* had seen, but never had approached them before; we prevailed on him; he called the place *Castrobuin*; another *Arab* called it *Calmay*; our *Armenians*, who interpreted for us in very bad *Italian*, called it *Castro duo fratilli* (I try to give the names from their mode of pronouncing); what we first saw was a square, each side about 400 yards along. The walls forty feet high, yet entire in many places; at each angle there is a circular tower, two others in each of the sides; they rise much higher than the walls; the towers and the walls constructed with very large blocks of cut stone. To what use the hollow of the square had been applied, I could form no conjecture; in it immense blocks of cut stone, and segments of arches of different dimensions, tumbled together in monstrous heaps; near to the gateway by which we entered, two arches remain perfect, a third nearly so; they were probably carried all along the inside of (but distinct at least twenty feet from) the wall. These arches spring from very slender pillars, each pillar a single shaft; the arches are nearly semicircular, of the same beautiful white stone as the pillars. About a quarter of a mile from this square there is another, which appears to be a fourth part less; the entrance into this is under the loftiest as well as the widest arch of stone I ever saw: I had no means of measuring, which I much regretted: I cannot draw, which I regretted much more. The proportions of the pillars, and of the arch which they support, conveyed to me something more just and beautiful than I can describe. The inside of the arch is richly ornamented with

sculpture ; at the sides there are niches, I suppose, for statues ; the outer face of the building is composed of great blocks of stone as the greater square ; and in many places yet entire, appear to be as well chiseled and jointed as the best constructed marble building I ever saw, even at *Venice*. The height of the wall seems to be equal to that of the greater square ; the thickness, which from some breaches quite through may be observed, from seven to eight feet, all through of the same stone, with little, if any, cement: the number and disposition of the towers the same as in the other ; but in this, where the towers rise above the wall, they are more ornamented ; two circles or bands of sculpture at equal distances appear relieved from the body of each tower ; but as all the tops are broken off, I could not guess how they had been closed. The sculpture on the inside of the great arch of entrance, and on many of the fragments of prostrated pillars, appear like those of Mr. *Wood's* plates of the ruins of *Palmyra*. Over the entrance-arch on the inside, are some remains of an inscription in *Arabic* ; but so defaced, that our *Shaikh*, who reads and writes *Arabic*, could not make out one word. All along the inside of this square, arches formed of the finest brick are constructed ; they project from the wall about thirty feet, and are about twenty feet high over the arches ; and close up to the wall is a platform of earth perfectly level, and now covered with rich and verdant herbage. No vestige of buildings appears in the hollow of this square, but many fragments of pillars lie in ruins ; some are of brick, and so cemented, that it must be as difficult to separate their parts as if they were solid blocks of stone. There are no openings in the walls from which any thing could have been discharged ; in the towers there are openings, at regular distances, which seem to have been designed to admit light only : not for any hostile purpose. Equidistant from each of the squares is a building of the same sort of stone, about fifteen feet square ; though it appears to have been much higher, it is still considerably more lofty than the other buildings : the stairs by which this was ascended appear perfect from about twelve feet above the ground ; what were lower, are now a heap of rubbish ; there does not remain the appearance of any communication between this and the other buildings ; all the interjacent ground is level, and now verdant ; no stream or well appears nearer than the well we stopt at yesterday, about six hours from hence. If this district could be supplied with water, it would be rich indeed ; for several miles onward we thought we discovered the remains of trenches or cuts for the conducting of water over the plain. The *Arabs* were entirely ignorant respecting these extraordinary buildings ; when or by whom erected,

erected, or when destroyed. The *Sbaikh* hurried us away, very much dissatisfied that we had lost so much time; he swears he never will come near it again: the distance from *Aleppo* is six days' easy journey. The *Sbaikh* says that we are now about forty miles from *Palmyra*, which is on our right, and about fifty from the *Euphrates*, on our left. No person at *Aleppo* gave me any hint of such a place. The gentlemen of our factory at *Busſora* had never heard of it.

PROSOPIS ACULEATA. KÖENIG.

Tjāmīe of the Hindus in the Northern Circars.

By Doctor ROXBURGH.

THIS grows to be a pretty large tree, is a native of most parts of the coast, chiefly of low lands at a considerable distance from the sea, and may be only a variety of *P. Spicegera*, for the thorns are in this sometimes wanting; flowers during the cold, and beginning of the hot seasons.

Trunk tolerably erect, bark deeply cracked, dirty ash colour.

Branches irregular, very numerous, forming a pretty large shady head.

Prickles scattered over the small branches; in some trees wanting.

Leaves alternate, generally bipinnate, from two to three inches long; pinnae from one to four, when in pairs opposite, and have a gland between their insertions.

Leaflets opposite, from seven to ten pair, obliquely lanced, smooth, entire, about half an inch long, and one-sixth broad.

Stipules none.

Spikes several, axillary, filiform, nearly erect.

Bracts minute, one-flowered, falling.

Flowers numerous, small, yellow, single, approximated.

Calyx below, five toothed.

Filaments united at the base. *Anthers* incumbent, a white gland on the apex of each, which falls off soon after the flower expands. *Style* crooked. *Stigma* simple.

Legume

Legume long, pendulous, not inflated.

Seeds many, lodged in a brown mealy substance.

The pod of this tree is the only part used. It is about an inch in circumference, and from six to twelve long; when ripe, brown, smooth, and contains, besides the seeds, a large quantity of a brown mealy substance, which the natives eat; its taste is sweetish and agreeable; it may therefore be compared to the *Spanish Algaroba*, or locust-tree. (*Ceratonia Siliqua* Linn.)

NOTE.

IN compliance with Dr. KÖNIG's opinion, I have called this a *Profopis*, though I am aware that the antheral glands give it a claim to the genus *Adenanthera*.

TO THE RIGHT HON. SIR JOHN SHORE, BART. GOVERNOR
GENERAL, AND PRESIDENT OF THE ASIATIC SOCIETY.

DEAR SIR,

I HAVE had from Mr. GOLDINGHAM (one of the Honourable Company's astronomers at *Fort Saint George*, a person of much ingenuity, and who applies himself to the study of antiquities) some drawings taken from the cave on the island of *Elephanta*. They are the most accurate of any I have seen, and accompanied with a correct description. This gentleman argues ably in favour of its having been an *Hindu* temple; yet I cannot assent to his opinion. The immense excavations cut out of the solid rock at the *Elephanta*, and other caves of the like nature on the island of *Salsette*, appear to me operations of too great labour to have been executed by the hands of so feeble and effeminate a race as the aborigines of *India* have generally been held to be, and still continue: and the few figures that yet remain entire, represent persons totally distinct in exterior from the present *Hindus*, being of a gigantic size, having large prominent faces, and bearing some resemblance to the *Abyssinians*, who inhabit the country on the west side of the

Red

Red Sea, opposite to *Arabia*. There is no tradition of these caves having been frequented by the *Hindus* as places of worship; and at this period no *poojab* is performed at any of them; and they are scarcely ever visited by the natives. I recollect particularly, that RAGONATH Row, when at *Bombay*, did not at all hold them in any degree of veneration.

I flatter myself that you, Sir, will agree with me in thinking the accompanying Memoir deserving of being inserted in our Proceedings.

Mr. GOLDINGHAM acquaints me, that he has paid two visits to some curious remains of antiquity, about thirty-five miles southerly of *Madras*, commonly known by the name of the *Seven Pagodas*. He promises to transmit to me his remarks on these curiosities, with copies of the inscriptions, which are in characters unknown to the people of the district. He declares himself highly ambitious of the favour of being admitted into our Society; and I shall be much gratified in being instrumental to his obtaining that favour, from a conviction, that he will greatly add to our stock of information, and prove an useful member.

I cannot conclude an address to you, Sir, as the worthy successor of the gentleman who lately presided over our Society with so much credit to himself and benefit to the public, without adverting to the memory of Sir WILLIAM JONES, whose universal science and ardent zeal for diffusing knowledge, I have had so many occasions to admire during the course of an acquaintance of twenty-five years.

I have the honour to be, with the greatest respect,

Dear Sir,

Your most faithful and most obedient servant,

Calcutta, 29th July, 1795.

J. CARNAC.

SOME ACCOUNT OF THE CAVE IN THE ISLAND OF ELEPHANTA.

By J. GOLDINGHAM, Esq.

THE *Elephanta Cave*, which is situated in a small island in the harbour of *Bombay*, has deservedly attracted the attention of the curious; an elephant of black stone,
large

large as the life, is seen near the landing-place, from which the island probably took its name; the cave is about three quarters of a mile from the beach; the path leading to it lies through a valley; the hills on either side beautifully clothed, and except when interrupted by the dove calling to her absent mate, a solemn stillness prevails; the mind is fitted for contemplating the approaching scene.

The cave is formed in a hill of stone; its massy roof is supported by rows of columns regularly disposed, but of an order different from any in use with us*; gigantic figures, in relief, are observed on the walls; these as well as the columns are shaped in the solid rock, and by artists it would appear possessed of some ability, unquestionably of astonishing perseverance. Several of the columns have been levelled, and the figures mutilated; as I am informed, by the *Portuguese*, who were at the trouble (and no small one) of dragging cannon up the hill, for the better execution of this exploit.—Destructive Superstition seeks not for merit; she commits to the flames and to destruction, members of a community most valuable, and structures doing honour to human ability!

The wall at the upper end of the cave is crowded with sculpture; the attention is first arrested by a grand bust, representing a being with three heads; the middle face is presented full, and expresses a dignified composure; the head and neck splendidly covered with ornaments. The face on the left is in profile, and the head-dress rich; in one of the hands is a flower, in the other a fruit resembling a pomegranate; a ring like that worn by the *Hindus* at present is observed on one of the wrists; the expression of the countenance by no means unpleasant. Different is the head on the right; the face is in profile, the forehead projects, the eyes stare; snakes supply the place of hair, and the representation of a human skull is conspicuous on the covering of the head; one hand grasps a monstrous *Cobra de Capella* (the hooded snake), the other a smaller; the whole together calculated to strike terror into the beholder. The height of this bust is about *eighteen* feet, and the breadth of the middle face about *four*; but the annexed drawing of this piece of sculpture will give a better idea of it perhaps than words.

Each side of this niche is supported by a gigantic figure leaning on a dwarf, as in the drawing.

A niche of considerable dimensions, and crowded with figures, on either side the former; in the middle of the niche, on the right, stands a gigantic figure,

* See the sketch of one of the pillars.

apparently female, but with *one breast* only. This figure has four arms, the foremost right hand is leaning on the head of a bull, the other grasps a *Cobra de Capella*, while a circular shield is observed in the inner left hand; the head is richly ornamented; on the right stands a male, bearing a pronged instrument, resembling a trident; on the left is a female, holding a mace or sceptre; near the principal is a beautiful youth on an elephant; above this is a figure with four heads, supported by swans or geese; and opposite is a male with four arms, mounted on the shoulders of another, having a sceptre in one of the hands. At the top of the niche small figures in different attitudes are observed, seemingly supported by clouds.

The most conspicuous of the group on the niche to the left, is a male near seventeen feet in height, with four arms; on the left stands a female about fifteen feet high. The same circular rings worn by the present *Hindu* women, are observed on the legs and wrists of this figure; the hair bears a like correspondence in the mode of putting it up; the countenance is peculiarly soft, and expressive of gentleness. In the back ground, a figure with four heads, supported by birds, and one with four arms, on the shoulders of another, are also observed. Several smaller figures in attendance: one with the right knee bent to the ground, in the attitude of addressing the principal, bears a crese, exactly resembling that in present use. The heads of most of the small male figures have a whimsical appearance, being covered with an exact resemblance of our wigs.

On each side of these groups is a small dark room, sacred in ancient times perhaps to all but the unpolluted *Bráhmén*; but bats, spiders, scorpions, and snakes, are now in the possession.

Left of the last described group, and nearer the side of the cave, is another: a male is observed in the action of leading a female towards a majestic figure seated in the corner of the niche, his head covered like our judges on the bench; the countenance and attitude of the female highly expressive of modesty and a timid reluctance: a male behind urges her forward. Several smaller figures compose this group.

Curious it is to observe all the female figures have ornaments round the wrists and legs, like those worn by the *Hindu* women at present, while the males bearing the same correspondence, have ornaments round the wrists only.

Opposite the last niche, and fifty feet nearer the entrance, is another of equal dimensions, inclosing a figure that forcibly arrests the attention: it is a gigantic half-

half-length of a male with eight arms; round one of the left arms a belt, composed of human heads, is seen; a right hand grasps a sword uplifted to sever a figure, seemingly kneeling (but too much mutilated to distinguish it properly) on a block, held in the correspondent left hand; a *Cobra de Capella* rises under one arm; among the singular decorations of the head, a human skull is observed: above are several small figures, represented in distress and pain. Many of the figures mutilated, as is the principal, whose aspect possesses a great degree of unrelenting fierceness.

Crossing to the other side of the cave, near one of the small rooms, before-mentioned, a male sitting as the people of this country do at present is observed; a female in the same posture on his left, with an attendant on either side: at the feet of the male is the figure of a bull couchant; and in each corner of the niche stands a gigantic guard. Opposite is a correspondent niche: the figures being a good deal mutilated, and the situation dark, prevent these being properly discriminated; a fitting male figure, having an attendant on either hand, is however perceived.

A niche filled with figures, greatly defaced, is observed on each side the entrance. On one side is a male that had eight arms, which are all destroyed; in the back part is the figure with four heads, supported by birds; and the other figure with four arms, whimsically elevated. A large fitting figure is the principal in the opposite niche; a horse and rider in the back ground; the former caparisoned according to the present mode in this country.

On the left side and half way up the cave, is an apartment about thirty feet square, enclosing the *Lingam*; an entrance on the four sides, and each side of either entrance is supported by a figure seventeen feet in height, each figure being ornamented in a different style.

The part of this surprising monument of human skill and perseverance hitherto described, is generally called *the great cave*; its length is 135 feet, and breadth nearly the same. A plan accompanies this account, which, however, I cannot venture to pronounce perfectly correct, having mislaid a memorandum of *particular* parts which were deduced, and with sufficient correctness perhaps from the *general* measures preserved. But there are compartments on both sides, separated from the great cave, by large fragments of rock and loose earth, heretofore probably a part of the roof. That on the right is spacious, and contains several pieces of sculpture; the most remarkable is a large figure, the body human, but the head
that

that of an elephant. The lingam is also enclosed here. Above each of a line of figures, standing in a dark situation, is a piece of sculpture, pointed out to me as an inscription: however (with the assistance of a torch) I found one an exact copy of the other, and with little resemblance of characters.

The compartment on the other side contains several sculptures, and among the rest, a figure with an elephant's head and human body. A deep cavity in the rock hereabout contains excellent water, which, being sheltered from the influence of the sun, is always cool, and deservedly held in estimation by those whom curiosity leads here through a scorching atmosphere. A traditional account of the extent of this cavity, and the communication of its waters by subterraneous passages, with others, very distant, was given me by a native of the island, which would make a considerable figure in the hands of a poet.

Gigantic as the figures are, the mind is not disagreeably moved on viewing them, a certain indication of the harmony of the proportions. Having measured three or four, and examined the proportions by the scale we allow the most correct, I found many stood even this test, while the disagreements were not equal to what are met with every day in people whom we think by no means ill proportioned.

The island wherein these curious remains of antiquity are situated, is about five miles and a half from *Bombay*, in an easterly direction; its circumference cannot be more than five miles: a neat village near the landing-place contains all its inhabitants, whom, inclusive of women and children, number about one hundred. Their ancestors, they tell you, having been improperly treated by the *Portuguese*, fled from the opposite island of *Salset* hither, cultivating rice, and rearing goats for their support. In the same humble road do they continue. The islanders have no boat; they cut wood from the adjoining hills, which the purchasers remove in boats of their own; they are under our protection, and pay about fifty-six pounds annually to the government; the surplus revenue furnishes their simple clothing. By persevering in this humble path, these harmless people continue to rejoice in tranquillity under their banyan-tree. The cave, they tell you, was formed by the Gods: and this is all they pretend to know of the matter.

Various have been, and are to this day, the conjectures respecting the *Elephanta Cave*. Those who attempt to deduce its origin from the *Egyptians*, from the *Jews*, or from *ALEXANDER the Great*, appear to me, with due deference, to give themselves much unnecessary trouble; which I shall further endeavour to shew as

briefly as the subject will admit of, though at the same time it must be observed, that resembling features are not wanting in the case of the *Egyptians* and of the *Jews*, to lead towards such deductions ; but these resemblances strike me as tending to the elucidation of a more interesting hypothesis, *viz.* That the systems of those people were *copies* of an *original*, found in *this part of the world*.

The striking resemblance in several particulars of the figures in the cave to the present *Hindu* race, would induce those who from history, as well as from observation, have reason to believe they have preserved the same customs from times immemorial, to imagine the ancestors of these people its fabricators ; but those who are in a small degree acquainted with their *mythology*, will be persuaded of it ; nor is a much greater extent of knowledge requisite to enable us to discover it to be a temple dedicated principally to SIVA, the *destroyer* or *changer*.

The *bust* is doubtless a personification of the three grand *Hindu* attributes of that *Being* for whom the ancient *Hindus* entertained the most profound veneration, and of whom they had the most sublime conceptions. The middle head represents BRAHMA, or the creative attribute ; that on the left, VISHNU, or the preserving ; and the head on the right, SIVA, or the destructive or changing attribute.

The figure with *one breast* has been thought by most to represent an *Amazon* ; it however, appears to me a representation of the *consort* of SIVA, exhibiting the active power of her lord ; not only as BAWANI, or courage, but as ISANI, or the goddess of nature, considered as male and female, and presiding over generation, and also as DURGA. Here we find the bull of ISWARA (one of SIVA's names), and the figure bearing his trisulc, or trident. The beautiful figure on the elephant is, I imagine, CAMA, or the *Hindu* God of Love ; the figure with *four heads*, supported by *birds*, is a representation of BRAHMA ; and that with *four arms*, mounted on the shoulders of another, is VISHNU.

The two principal figures in the niche to the left, represent, perhaps, SIVA and his Goddess as PARVATI. Here, as before, we observe BRAHMA and VISHNU in the *back ground*.

The terrific figure with eight arms has been much talked of ; some will have it to represent SOLOMON, threatening to divide the harlot's child ; others, with more reason on their side, suppose it to represent the tyrant CANSA, attempting the life of the infant God CHRISHNA, when fostered by the herdsman ANANDA. To me, the third attribute, or the *destroyer in action*, appears too well represented to be mistaken. The distant scene, where the smaller figures appear in distress and pain,

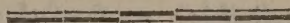
pain, is perhaps the infernal regions. The figure about to be destroyed, does not seem to me an infant, but a full grown person ; if, indeed, the *destroyer* was of the human size, the figure in question would bear the proper proportion as an infant ; but as he is of enormous magnitude, a human *being*, full grown, would appear but an infant by the side of him ; and thus it is, I imagine, that people have been deceived : a case by no means uncommon in circumstances like the present.

The sitting male and female figures, having a bull couching at the feet of the former, are SIVA and his Goddesses ; and thus are they represented in the pagodas of the present day.

No person can mistake the figure with the human body and elephant's head for any other than GANE'SA, the *Hindu* God of Wisdom, and the first born of SIVA ; and thus is he represented at present.

From what has been advanced, it will appear incontestible, I imagine, that this is a *Hindu temple* ; whence the *Lingam* is a testimony, sufficient of SIVA's having presided here, without the other evidences which the intelligent in the *Hindu* mythology will have discovered in the course of this account.

To deduce the æra of the fabrication of this structure is not so easy a task ; but it was, no doubt, posterior to the great schism in the *Hindu* religion, which according to the *Puranas*, I learn, happened at a period coeval with our date of the creation. Be this as it may, we have accounts of powerful princes who ruled this part of the country of a later date, particularly of one who usurped the government in the ninetieth year of the *Christian* æra, famed for a passion for architecture. Many worse hypotheses have been, than one which might be formed of his having founded the cave ; but I am led to imagine, no certain conclusions on this dark subject could be drawn from the sources of information open at present.



AN ACCOUNT OF THE PRESENT STATE OF DELHI.

By Lieut. W. FRANKLIN.

THE once celebrated city of *Delhi*, the capital of *Mussulman* sovereignty in *Hindustan*, and in more early times, the seat of *Hindu* dominion over northern *India*, has employed

employed the pen of many different authors, *Asiatic* and *European*; though of the latter in a less degree than might have been expected.

The following account of the present state of this ancient city, is extracted from a journal of observations made during an official tour through the *Dowab* and the adjacent districts, in company with Captain REYNOLDS, of the *Bombay* establishment, appointed by the *Bengal* government to survey that part of the country in the year 1793.

It cannot be supposed to contain much new information on things already described by others; but as a faithful statement of the actual condition of the once flourishing metropolis of a great kingdom now in ruins, it may be acceptable; and in this hope it is offered with deference to the Society: who will judge whether it be deserving of more general diffusion by publication with their more important researches.

The extent of the ruins of old *Delhi* cannot, I suppose, be less than a circumference of twenty miles, reckoning from the gardens of *Shalimar*, on the north-west, to the *Kuttub Minar* on the south-east; and proceeding from thence along the heart of the old city by way of the mausoleum of NIZAM-U-DEEN, on which stands HUMAIOON's tomb, and the old fort of *Delhi* on the banks of the *Jumna*, to the *Ajmere* gate of *Shah Jehanabad*.

The environs to the north-west are crowded with the remains of spacious gardens and country-houses of the nobility, which were formerly abundantly supplied with water by means of the noble canal dug by ALI MIRDAN KHAN, and which formerly extended from above *Paniput* quite down to *Delhi*, where it joined the *Jumna*; fertilizing in its course a tract of more than ninety miles in length, and bestowing comfort and affluence on those who lived within its extent. This canal, as it run through the suburbs of *Mogul Parah*, nearly three miles in length, was about twenty-five feet deep, and about as much in breadth, cut from the solid stone-quarry, on each side, from which most of the houses in the neighbourhood have been built. It had small bridges erected over it at different places, some of which communicated with the garden-houses of the nobility.

In the year of the *Hagiree* 1041 (A. C. 1631-2) the Emperor SHAH-JEHAN founded the present city and palace of *Shah-Jehanabad*, which he made his capital during the remainder of his reign. The new city of *Shah-Jehanabad* lies on the western bank of the *Jumna*, in latitude $28^{\circ} 36'$ north. The city is about seven miles in circumference, and is surrounded on three sides by a wall of brick and stone;

stone; a parapet runs along the whole, with loopholes for musquetry; but there are no cannon planted on the ramparts. The city has seven gates; viz. *Labore* gate, *Ajmere* gate, *Turkoman* gate, *Delhi* gate, *Moor* gate, *Cabul* gate, and *Cashmere* gate; all of which are built of free-stone, and have handsome arched entrances of stone, where the guards of the city keep watch. Near the *Ajmere* gate is a *Madriſſa*, or college, erected by GHAZI-U-DEEN KHAN, nephew of NIZAM-UL-MOOLLUCK: it is built of red stone, and situated at the centre of a spacious quadrangle, with a stone fountain. At the upper end of the area is a handsome mosque built of red stone, inlaid with white marble. The apartments for the students are on the sides of the square, divided into separate chambers, which are small but commodious. The tomb of GHAZI is in the corner of the square, surrounded by a shrine of white marble, pierced with lattice-work. The college is now shut up, and without inhabitants. In the neighbourhood of the *Cabul* gate is a garden, called *Tees Huzzari Baug*, in which is the tomb of the queen MALKA-ZEMANI, wife of the emperor MOHUMMUD SHAH: a marble tablet, placed at the head of the grave, is engraved with some *Persian* couplets informing us of the date of her death, which happened five years since, *ann. Hagiree* 1203. Near this tomb is another, of the princess ZEEBUL NISSAH BEEGUM, daughter of AURUNGZEBE. On a rising ground near this garden, from whence there is a fine prospect of *Shah Jehanabad*, are two broken columns of brown granite, eight feet high, and two and a half in breadth, on which are inscriptions in an ancient character.

Within the city of new *Delhi* are the remains of many splendid palaces belonging to the great Omrahs of the empire. Among the largest are those of KUMMER-U-DEEN KHAN, *Vizier* to MOHUMMUD SHAH; ALI MIRDAN KHAN, the *Persian*; the *Nabob* GHAZI-U-DEEN KHAN; SEFDUR JUNG's; the garden of GOODSEAH BEGUM, mother to MOHUMMUD SHAH; the palace of SADUT KHAN; and that of SULTAN DARAH SHEKOA. All these palaces are surrounded with high walls, and take up a considerable space of ground. Their entrances are through lofty arched gateways of brick and stone, at the top of which are the galleries for music: before each is a spacious court yard for the elephants, horses, and attendants of the visitors. Each palace has likewise a *Mahal*, or Seraglio, adjoining; which is separated from the *Dewan Khana* by a partition-wall, and communicates by means of private passages. All of them had gardens with capacious stone reservoirs and fountains in the centre; an ample terrace extended round the whole

whole of each particular palace; and within the walls were houses and apartments for servants and followers of every description, besides stabling for horses, *Feel Khanas*, and every thing belonging to a nobleman's suit. Each palace was likewise provided with a handsome set of baths, and a *Teb Khana* under ground. The baths of SADUT KHAN are a set of beautiful rooms, paved and lined with white marble: they consist of five distinct apartments, into which light is admitted by glazed windows from the top of the domes. SUFDER JUNG's *Teb Khana* consists of a set of apartments, built in a light delicate manner; one long room, in which is a marble reservoir, the whole length, and a small room, raised and balustraded on each side, both faced throughout with white marble.

SHAH JEHANABAD is adorned with many fine mosques, several of which are still in perfect beauty and repair. The following are most worthy of being described: the first, the *Jama Musjed*, or great cathedral. This mosque is situated about a quarter of a mile from the royal palace; the foundation of it was laid upon a rocky eminence, named *Jujula Pabar*, and has been scarped on purpose. The ascent to it is by a flight of stone steps, thirty-five in number, through a handsome gateway of red stone. The doors of this gateway are covered throughout with plates of wrought brass, which Mr. BERNIER imagined to be copper. The terrace on which the mosque is situated, is a square of about fourteen hundred yards of red stone; in the centre is a fountain lined with marble, for the purpose of performing the necessary ablutions previous to prayer. An arched colonade of red stone surrounds the whole of the terrace, which is adorned with octagon pavillions at convenient distance, for sitting in. The mosque is of an oblong form, two hundred and sixty-one feet in length, surrounded at top by three magnificent domes of white marble, intersected with black stripes, and flanked by two *Minarets* of black marble and red stone alternately, rising to the height of a hundred and thirty feet. Each of these *Minarets* has three projecting galleries of white marble; and their summits are crowned with light octagon pavillions of the same. The whole front of the *Jama Musjed* is faced with large slabs of beautiful white marble; and along the cornice are ten compartments, four feet long, and two and a half broad, which are inlaid with inscriptions in black marble, in the *Nuski* character, and are said to contain great part, if not the whole, of the *Koran*. The inside of the mosque is paved throughout with large flags of white marble, decorated with a black border; and is wonderfully beautiful and delicate: the flags are about three feet in length by one and a half broad. The walls and roof are lined with plain white marble; and

and near the *Kibla* is a handsome *taak*, or niche, adorned with a profusion of freeze-work. Close to this is a *mimber*, or pulpit, of marble, having an ascent of four steps, and ballustraded. The ascent to the *Minarets* is by a winding stair-case of a hundred and thirty steps of red stone; and at the top you have a noble view of the king's palace, and the whole of the *Cuttub Minar*, the *Kurrun Minar*, HUMAIOON's tomb, the palace of FEROSE SHAH, the fort of old *Delhi*, and the fort of *Loni*, on the opposite of the *Jumna*. The domes are crowned with cullises, richly gilt, and present a glittering appearance from a distance. This mosque was begun by SHAH JEHAN, in the fourth year of his reign, and completed in the tenth: the expences of its erection amounted to ten lacks of rupees; and it is in every respect worthy of being the grand cathedral of the empire of *Indostan*.

Not far from the palace is the mosque of ROSHUN-A-DOWLAH, rendered memorable to the *Delbians* for being the place where NADIR SHAH saw the massacre of the unfortunate inhabitants. The cause assigned by historians for this unhuman act is, that a sedition broke out in the great market, in which two thousand *Persians* were slain. NADIR, on hearing of the tumult, marched out of the fort at night with a small force to the *Musjed* of ROSHUN-A-DOWLAH; where he was fired upon in the morning from a neighbouring terrace, and an officer killed close by his side. He instantly ordered an indiscriminate slaughter of the inhabitants; and his squadrons of cavalry pouring through the streets, before the afternoon put to death a hundred thousand persons of all descriptions. "The King of *Persia*," says the translator of FERISTHA, "sat, during the dreadful scene, in the *Musjed* of ROSHUN-A-DOWLAH. None but slaves durst come near him, for his countenance was dark and terrible. At length the unfortunate emperor, attended by a number of his chief Omrahs, ventured to approach him with downcast eyes. The Omrahs who preceded MOHUMMUD, bowed down their foreheads to the ground. NADIR SHAH sternly asked them what they wanted; they cried out with one voice, Spare the city. MOHUMMUD said not a word, but tears flowed fast from his eyes; the tyrant, for once touched with pity, sheathed his sword, and said, For the sake of the prince MOHUMMUD, I forgive." Since this dreadful massacre this quarter of *Delhi* has been but very thinly inhabited. The mosque of ROSHUN-A-DOWLAH is situated at the entrance of the *Chandney Choke*, or market; it is built of red stone, of the common size, and surmounted by three domes richly gilt.

ZEENUL-AL-MUSSAJID, or the ornament of mosques, is on the banks of the *Jumna*, and was erected by a daughter of AURUNGZEBE, of the name of ZEENUT

AL NISSA'H. It is of red stone with inlayings of marble, and has a spacious terrace in front of it, with a capacious reservoir faced with marble. The princess who built it, having declined entering into the marriage state, laid out a large sum of money in the above mosque, and, on completing it, she built a small sepulchre of white marble, surrounded by a wall of the same, in the west corner of the terrace. In this tomb she was buried in the year of the *Hegira* 1122, corresponding with the year of CHRIST 1710. There were formerly lands allotted for the support and repairs of this place, amounting to a lack of rupees *per annum*; but they all have been confiscated during the troubles this city has undergone. Exclusive of the mosques above described, there are in *Shah Jehanabad* and its environs above forty others; but as most of them are of inferior size, and all of them of the same fashion, it is unnecessary to present any further detail.

The modern city of *Shah Jehanabad* is rebuilt, and contains many good houses, chiefly of brick. The streets are in general narrow, as is usual in most of the large cities of *Asia*; but there were formerly two very noble streets; the first leading from the palace gate through the city to the *Delhi* gate, in a direction north and south. This street was broad and spacious, having handsome houses on each side of the way, and merchants shops well furnished with the richest articles of all kinds. SHAH JEHAN caused an aqueduct to be made of red stone, which conveyed the water along the whole length of the street, and from thence into the royal gardens, by means of a reservoir under ground. Some remains of the aqueduct are still to be seen; but it is choaked up in most parts with rubbish. The second grand street was likewise from the palace to the *Labore* gate, lying east and west: it was equal in many respects to the former; but in both of them the inhabitants have spoiled their appearance, by running a line of houses down the centre, and across the streets in other places, so that it is with difficulty a person can discover their former situation without a narrow inspection. The bazars in *Delhi* are but indifferently furnished at present, and the population of the city miserably reduced of late years: the *Chandney Choke* is the best furnished bazar in the city, though the commerce is very trifling. Cotton cloths are still manufactured, and the inhabitants export indigo. Their chief imports are by means of the northern caravans which come once a year, and bring with them from *Cabul* and *Cashmere* shawls, fruit, and horses; the two former articles are procurable in *Delhi* at a reasonable rate. There is also a manufacture at *Delhi* for beedree hooka bottoms. The cultivation about the city is principally on the banks of the *Jumna*, where it
is

is very good ; the neighbourhood produces corn and rice, millet and indigo. The limes are very large and fine. Precious stones likewise are to be had at *Delhi*, of very good quality, particularly the large red and black cornelians ; and peerozas are sold in the bazars.

The city is divided into thirty-six mohauls or quarters, each of which is named either after the particular Omrah who resided there, or from some local circumstance relative to the place. It appears that the modern city of *Shah Jehanabad* has been built principally upon two rocky eminences ; the one where the *Jama Musjid* is situated, named *Jujula Pabar* ; and the other, the quarter of the oil-sellers, called *Bejula Pabar* : from both of these eminences you have a commanding view of the remainder of the city. Ancient *Delhi* is said by historians to have been erected by Rajah DELU, who reigned in *Hindustan* prior to the invasion of ALEXANDER the Great ; others affirm it to have been built by Rajah PETTOURAH, who flourished in a much later period. It is called in *Sanscrit Indraput*, or the abode of INDRA, one of the *Hindu* deities ; and it is also thus distinguished in the royal diplomas of the chancery office. Whether the city be of the antiquity reported, it is difficult to determine : but this much is certain, that the vast quantity of buildings which are to be found in the environs for upwards of twenty miles in extent, as well as their grandeur and style of architecture, prove it to have once been a rich, flourishing, and populous city.

On the 11th of *March* we were presented to the King SHAH ALLUM. After entering the palace, we were carried to the *Dewaun Khanah*, or hall of audience for the nobility, in the middle of which was a throne raised about a foot and a half from the ground. In the centre of this elevation was placed a chair of crimson velvet, bound with gold clasps, and over the whole was thrown an embroidered covering of gold and silver thread : a handsome *Samianah*, supported by four pillars incrustated with silver, was placed over the chair of state. The King at this time was in the *Tusbeah Khanah* : an apartment in which he generally sits. On passing a skreen of *Indian* connaughts, we proceeded to the front of the *Tusbeah Khanah*, and being arrived in the presence of the King, each of us made three obeisances in turn, by throwing down the right hand pretty low, and afterwards raising it to the forehead ; we then went up to the Musnud on which his Majesty was sitting, and presented our nuzzers on white handkerchiefs, each of our names being announced at the time we offered them : the King received the whole, and gave the nuzzers to MIRZA AKBER SHAH, and two other princes who sat on his left hand. We

then went back, with our faces towards the presence, made the same obeisance as before, and returned again to the Musnud. After a slight conversation, we were directed to go without the inclosure, and put on the *Kbelauts* which his Majesty ordered for us; they consisted of light *India* dresses; a turban, jammah, and kummerbund, all cotton, with small gold sprigs. On being clothed in these dresses, we again returned to the *Tusbeab Khanah*, and after a few minutes stay, previous to which Captain REYNOLDS received a sword from the King, we had our dismissal; and some servants were ordered to attend us in viewing the palace.

The present King, SHAH ALLUM, is seventy-two years of age; of a tall commanding stature, and dark complexion; his deportment was dignified, and not at all diminished by his want of sight, though he has suffered that cruel misfortune above five years. The marks of age are very strongly discernible in his countenance: his beard is short and white. His Majesty appeared at our introduction to be in good spirits; said he was happy at our arrival; and desired we would visit his palace and the fort of *Selim Gbur*. He was dressed in a rich kheem-khaub, and was supported by pillows of the same materials.

I imagined I could observe in his aspect a thoughtfulness, as if sufficiently well acquainted with his present degraded situation, and the recollection of his former state.

The palace of the royal family of TIMUR was erected by the Emperor SHAH JEHAN at the time he finished the new city: it is situated on the western bank of the *Jumna*, and surrounded on three sides by a wall of red stone. I suppose the circumference of the whole to be about a mile. The two stone figures, mentioned by BERNIER, at the entrance of the palace, which represented the Rajah of *Chitore* and his brother POTTAH, seated on two elephants of stone, are not now to be seen; they were removed by order of AURUNGZEBE, as favouring too much of idolatry; and he enclosed the place where they stood with a screen of red stone, which has disfigured the entrance of the palace. The first object that attracts the attention after entering the palace, is the *Dewaun Aum*, or public hall of audience, for all descriptions of people. It is situated at the upper end of a spacious square, and is a noble building, but at present much in decay. On each side of the *Dewaun Aum*, and all round this square, are apartments of two stories high, the walls and front of which, in the times of the splendor of the empire, were adorned with a profusion of the richest tapestry, velvets, and silks; the nobles vying with each other in rendering them the most magnificent, especially on festivals,

vals, and days of public rejoicings, when they presented a grand sight. These decorations have however been long since laid aside, and nothing but the bare walls remained. From the *Dewaun Aum*, we proceeded thro' another handsome gateway to the *Dewaun Khafs*, before mentioned. The building is situated at the upper end of a spacious square, and elevated upon a marble terrace, about four feet high. The *Dewaun Khafs* in former times has been adorned with excessive magnificence, and though stripped and plundered by various invaders, still retains sufficient beauty to render it admired. I judge the building to be a hundred and fifty feet in length, by forty in breadth. The roof is flat, supported by a great many columns of fine white marble, which have been richly adorned with inlaid flower-work of beautiful stones: the cornices and borders have been decorated with a great quantity of frieze and sculptured work. The ceiling was formerly incrustated with a work of rich foliage of silver throughout the whole extent, which has been long since taken off and carried away. The delicacy of the inlaying in the compartments of the walls is much to be admired; and it is matter of heartfelt regret to see the barbarous ravages that have been made in picking out the different cornelians, and breaking the marble by violence. Around the interior of the *Dewaun Khafs*, in the cornice, are the following lines, engraved in letters of gold, upon a white marble ground:

“ If there be a paradise upon earth, this is it—’tis this, ’tis this.” The terrace on which the *Dewaun Khanah* is built is composed of large beautiful slabs of white marble; and the building is crowned at top with four pavillions or cupolas, of the same materials.

The royal baths, built by SHAH JEHAN, are situated a little to the northward of the *Dewaun Khafs*, and consist of three very large apartments surmounted by white marble domes. The inside of the baths is lined, about two thirds of the way up, with marble, having a beautiful border of flower-worked cornelians and other precious stones, executed with taste. The floors are paved throughout with marble in large slabs, and there is a fountain in the centre of each, with many pipes: large reservoirs of marble, about four feet deep, are placed in different parts of the walls; the light is admitted from the roof by windows of party-coloured glasses; and capacious stones, with iron gratings, are placed underneath each separate apartment. There is a noble mosque adjoining, entirely of white marble, and made after the fashion described above. In the *Shah Baug*, or the royal gardens, is a very large octagon room, which looks towards the river *Jumna*. This room is called

Shah

Shah Boorj, or the royal tower; it is lined with marble; and from the window of it the late heir apparent, MIRZA JUWAN BUKHT, made his escape in the year 1784, when he fled to *Lucknow*: he descended by means of a ladder made with turbans; and as the height is inconsiderable, effected it with ease. A great part of this noble palace has suffered very much by the destructive ravages of the late invaders. The *Robillas* in particular, who were introduced by GHOLAUM KAUDER, have stripped many of the rooms of their marble ornaments and pavements, and have even picked out the stones from the borders of many of the floorings. Adjoining is the fortress of *Selim Gbur*, which you reach by a stone bridge, built over an arm of the *Jumna*. The fort is now entirely in ruins. At the eastern end of it we were shewn the sally-port, from which GOLUAM KAUDER KHAN made his escape with all his retinue, when the place was besieged by the *Mabrattas* in 1788. The river *Jumna* running directly underneath this bastion, the tyrant crossed it immediately, and fled to *Meerut*, in the *Dooab*.

The *Gentur Munter*, or observatory, in the vicinity of *Delhi*, has been described by former travellers. It was built in the third year of the reign of *Mohammed Shah*, by the Rajah *Jeyfing*, who was assisted by many persons celebrated for their science in astronomy from *Persia*, *India*, and *Europe*; but died before the work was completed; and it has since been plundered, and almost destroyed by the *Jeits*, under *Juwaher Sing*.

I will only add a short account of the royal gardens of *Shalimar*. These gardens, made by the Emperor *Shah Jehan*, were begun in the fourth year of his reign, and finished in the thirteenth; on which occasion, according to Colonel *Dow*, the Emperor gave a grand festival to his court. These gardens were laid out with admirable taste, and cost the enormous sum of a million sterling: at present their appearance does not give cause to suppose such an immense sum has been laid out upon them; but great part of the most valuable and costly materials have been carried away. The entrance to them is through a gateway of brick; and a canal, lined with stone, having walks on each side with a brick-pavement, leads up to the *Dewaun Khanab*, or hall of audience; most part of which is now fallen down: from thence, by a noble canal, having a fountain in the center, you proceed to the apartments of the *Haram*, which embrace a large extent of ground. In the front is an *Ivan*, or open hall, with adjoining apartments; the interior of which are decorated with a beautiful border of white and gold painting, upon a ground of the finest chunam. At the upper end of this *Ivan* was formerly a marble throne, raised
about

about three feet from the ground ; all of which is removed. On each side of this *Ivan*, inclosed by high walls, are the apartments of the *Haram*, some of which are built of red stone, and some of the brick faced with fine chunam, and decorated with paintings of flowers of various patterns. All these apartments have winding passages which communicate with each other, and the gardens adjoining by private doors. The extent of *Shalimar* does not appear to have been large: I suppose the gardens altogether are not above a mile in circumference. A high brick-wall runs around the whole, which is destroyed in many parts of it, and the extremities are flanked with octagon pavilions of red stone. The gardens still abound with trees of a very large size, and very old. The prospect to the southward of *Shalimar* towards *Delhi*, as far as the eye can reach, is covered with the remains of extensive gardens, pavilions, mosques, and burying-places, all desolate and in ruins. The environs of this once magnificent and celebrated city appear now nothing more than a shapeless heap of ruins ; and the country round about is equally forlorn.

ASIATICK RESEARCHES:

OR,

TRANSACTIONS

OF THE

SOCIETY INSTITUTED IN BENGAL,

FOR INQUIRING INTO THE

HISTORY AND ANTIQUITIES, THE ARTS, SCIENCES, AND LITERATURE,

OF

A S I A.

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ADVERTISEMENT.

IN the dissertation on the Religious Ceremonies of the Hindus, inserted in the present Volume, the author cites a passage which appears to have reference to the creation of the universe, and which seems, upon the whole, to bear some resemblance to the account given by Moses in the Pentateuch. This naturally leads us to consider the antiquity of both the Mo-
saic and Hindu Scriptures, and to compare, in some measure, the accounts given in each work relative to that important fact.

The writings of MOSES have generally been considered as more ancient than those of any other person; but the Hindu Scriptures, so far as the researches of several learned men have extended, appear to be of very high antiquity, and are even carried by some beyond the time of the Hebrew Lawgiver. Sir W. JONES, in his Preface to the "Institutes of Hindu Law, or the Ordinances of MENU, according to the Gloss of CULLU'CA," carries the highest age of the *Yajur véda* 1580 years before the birth of CHRIST, which is nine years previous to the birth of MOSES, and ninety before MOSES departed from Egypt with the Israelites. This date, of 1580 years before CHRIST, seems the more probable, because the Hindu sages are said to have delivered their knowledge orally. CULLU'A BHATTA produced, what may be said to be very truly, the shortest, yet the most luminous; the least ostentatious, yet the most learned; the deepest, yet the most agreeable, commentary on the Hindu Scriptures, that ever was composed on any author ancient or modern, European or Asiatick: and it is this work to which the learned generally apply, on account of its clearness. We shall not, however, take up your time with a dissertation on the exact age of either the Hebrew or the Hindu Scriptures: both are ancient: let the learned judge: but some extracts from the Hindu and Hebrew accounts of the creation may serve to shew how much they agree together: whether the Hindu Bráhmens borrowed from MOSES, or MOSES from the Hindu Bráhmens, is not our present enquiry.

Extracts from the Laws of MENU.

THIS universe existed only in the first divine idea yet unexpanded, as if involved in

Extracts from the Writings of MOSES.

IN the beginning God created the heaven and the earth. (Gen. i. 1.)

darkness,

MENU.

darkness, imperceptible, undefinable, undiscoverable *by reason, and undiscovered by revelation*, as if it were wholly immersed in sleep. (chap. i. 5.)

Then the *sole* self-existing power, himself undiscerned, but making this world discernible, with five elements and other principles of nature, appeared with undiminished glory, *expanding his idea*, or dispelling the gloom. (ib. 6.)

He, whom the mind alone can perceive, whose essence eludes the external organs, who has no visible parts, who exists from eternity, even HE, the soul of all beings, whom no being can comprehend, shone forth in person. (ib. 7.)

He, having willed to produce various beings from his own divine substance, first with a thought created the waters, &c. (ib. 8.)

The waters are called *nára*, because they were the production of NARA, *or the spirit of God*; and, since they were his first *ayana*, or *place of motion*, he thence is named NA'RA'YANA, *or moving on the waters*. (ib. 10.)

From THAT WHICH is, the first cause, not the object of sense, existing *every where in substance*, not existing *to our perception*, without beginning or end, was produced the divine male. (ib. 11.)

—He framed the heaven *above* and the earth *beneath*: in the midst *he placed* the subtil ether, the eight regions, and the permanent receptacle of waters. (ib. 13.)

MOSES.

And the earth was without form, and void; and darkness was upon the face of the deep: and the Spirit of God moved upon the face of the waters. (ib. 2.)

And God said, Let us make man in our image. (ib. 26.)

And God said, Let there be a firmament in the midst of the waters;—and God called the firmament Heaven. (ib. 6, 8.)

MENU.

—He framed all creatures. (ib. 16.)

—He too first assigned to all creatures distinct names, distinct acts, and distinct occupations. (ib. 21.)

—He gave being to time and the divisions of time, to the stars also, and the planets, to rivers, oceans, and mountains, to level plains, and uneven vallies. (ib. 24.)

To devotion, speech, &c. for he willed the existence of all created things. (ib. 25.)

For the sake of distinguishing actions, He made a total difference between right and wrong. (ib. 26.)

—Having divided his own substance, the mighty Power became half male, half female. (ib. 32.)

MOSES.

And God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firmament of heaven. And God created great whales, and every living creature that moveth, which the waters brought forth abundantly after their kind, and every winged fowl after his kind. And God said, Let the earth bring forth the living creature after his kind, cattle and creeping thing, and beast of the earth after his kind. (ib. 20, 21, 24.)

God brought every beast of the field unto Adam to see what he would call them. And God put the man into the garden of Eden to dress it and to keep it. Abel was a keeper of sheep, but Cain was a tiller of the ground. (ib. ii. 19, 15. iv. 2.)

God said, Let there be lights in the firmament of heaven, to divide the day from the night; and let them be for signs, and for days, and for years.—And God made two great lights; the greater light to rule the day, and the lesser light to rule the night. (Gen. i. 14, 16. see also chap. ii. 10, 11, 13, 14. & aliis locis.)

If thou doest well, shalt thou not be accepted? and if thou doest not well, sin lieth at the door. (ib. iv. 7. see also chap. ii. 16, 17.)

God created man in his own image; in the image of God created he him; male and female created he them. (ib. i. 27.)

He,

MENU.

MOSES.

He, whose powers are incomprehensible, having created this universe was again absorbed in the Spirit, changing *the time of energy for the time of repose.* (ib. 56.)

Thus the heavens and the earth were finished, and all the host of them. And on the seventh day God ended his work;—and rested on the seventh day from all his work. (ib. ii. 1, 2.)

Thus the accounts of MOSES and the Hindu Scriptures concerning the creation may be easily reconciled to each other. But it is not our intention to support the Hindu writings in preference to the Hebrew Pentateuch; all we desire is, that truth may be investigated, and that error may be exploded. There are many persons, no doubt, in the East better acquainted with the antiquity of the Sanscrit books than we are, and by our intercourse with the Bráhmens and learned Pundits, much may be done towards a right discovery of this important matter. The Hindus have, for many ages, looked upon their Scriptures as a revelation from the Supreme Being of his mind and will concerning the works of his creation. They bring forward the Deity declaring his own mind, and think they have an indubitable right to follow the precepts which his word, according to their ancient lawgivers, contains. MOSES too, in his Pentateuch, tells us that the Almighty ordered him to promulgate his law among the people, and to shew them the path in which they should walk. The Jews, and after them the Christians, have generally received MOSES's account as valid, and have consequently followed its dictates with a religious zeal. Enthusiasm among every description of people must certainly be despised, but zeal in contending for the truth is highly commendable in whomsoever it shall be found. Had the Hindu writings, divested of their fabulous passages, been disseminated in the Western world with as much energy as the works of MOSES have been spread abroad, perhaps they would likewise have found many admirers and advocates.

Sir W. JONES, speaking of the Laws of MENU, says, they contain abundance of curious matter extremely interesting both to speculative lawyers and antiquaries, with many beauties which need not be pointed out, and with many blemishes which cannot be justified or palliated. It is a system of despotism and priestcraft, both indeed limited by law, but artfully conspiring to give mutual support, though with mutual checks; it is filled with strange conceits in metaphysics and natural philosophy, with idle superstition, and with a scheme of theology most obscurely figurative, and consequently liable to dangerous misconception; it abounds with minute and childish formalities, with ceremonies generally absurd and ridiculous: the punishments are partial and fanciful; for some crimes, dreadfully cruel, for other reprehensibly slight; and the very morals, though rigid enough on the whole, are in one or two instances (as in the case of light oaths and of pious perjury) unaccountably relaxed: nevertheless, a spirit of sublime devotion, of benevolence to mankind, and of amiable tenderness to all sentient creatures, pervades the whole work; the style of it has a certain austere majesty, that
sounds

sounds like the language of legislation, and extorts a respectful awe; the sentiments of independence on all beings but God, and the harsh admonitions, even to kings, are truly noble; and the many panegyrics on the *Gáyatri*, the *mother*, as it is called, of the *Véda*, prove the author to have *adored* (not the visible material *sun*, but) *that divine and incomparably greater light*, to use the words of the most venerable text in the Indian Scripture, *which illumines all, delights all, from which all proceed, to which all must return, and which can alone irradiate* (not our visual organs merely, but our souls and) *our intellects*.

The writings of MOSES too, are not totally exempt from passages which, to the mere reason of humanity, carry with them the appearance of fiction or of cruelty. Thus the formation of woman by throwing ADAM into a deep sleep, and taking a rib from his side, has long been matter of ridicule for the sons of infidelity; as have many other parts of the Pentateuch. But whatever opinion may be entertained of MENU and his laws, it must be remembered that they are revered as the word of God by many millions of HINDUS who compose several great nations, who are of vast importance to the political and commercial interests of Europe, whose well directed industry would add largely to the wealth of Great Britain, and who ask no greater compensation than protection for their persons and property, justice in their temporal concerns, indulgence to their old religion, and the benefit of those laws, which they hold sacred, and which alone they can understand.

I.

HISTORICAL REMARKS ON THE COAST OF MALABAR. WITH
SOME DESCRIPTION OF THE MANNERS OF ITS INHABITANTS.

By JONATHAN DUNCAN, Esq.

SEC-

TION

I. IN the book called *Kerul Oodputtee*, or, “The emerging of the Country of *Kerul*,” (of which, during my stay at Calicut, in the year 1793, I made the best translation into English in my power, through the medium of a version first rendered into Persian, under my own inspection, from the Malabaric copy procured from one of the Rajahs of the *Zamorin’s* family,) the origin of that coast is ascribed to the piety or penitence of *Pureseu Rama*, or *Puresram*, (one of the incarnations of VISHNU,) who, stung with remorse for the blood he had so profusely shed in overcoming the Rajahs of the *Khetry* tribe, applied to VARUNA, the God of the Ocean, to supply him with a tract of ground to bestow on the *Bráhmens*; and VARUNA having accordingly withdrawn his waters from the *Gowkern* (a hill in the vicinity of Mangalore) to Cape Comorin, this strip or territory, has, from its situation, as lying along the foot of the *Sukhien* (by the Europeans called the *Ghaut*) range of mountains, acquired the name of *Mulyalum*, (i. e. Skirting at the Bottom of the Hills,) a term that may have been shortened into *Maleyam*, or *Maleam*; whence are also probably its common names of *Mulievar* and *Malabar*; all which *Puresram* is firmly believed, by its native Hindu inhabitants, to have parcelled out among different tribes of *Bráhmens*, and to have directed that the entire produce of the soil should be appropriated to their maintenance, and towards the edification of temples, and for the support of divine worship; whence it still continues to be distinguished in their writings by the term of *Kermiboomy*, or, “The Land of Good Works for the Expiation of Sin.”

II. The country thus obtained from the sea *, is represented to have remained

* In a manuscript account of Malabar that I have seen, and which is ascribed to a Bishop of Virapoli, (the seat of a famous Roman Catholic seminary near Cochin,) he observes, that by the accounts of the learned natives of that coast, it is little more than 2300 years since the sea came up to the foot of the *Sukhien*, or *Ghaut* mountains; and that it once did so he thinks extremely probable from the nature of the soil, and the quantity of sand, oyster-shells, and other fragments, met with in making deep excavations.

long in a marshy and scarcely habitable state; insomuch, that the first occupants, whom *Puresfram* is said to have brought into it from the eastern, and even the northern, part of India, again abandoned it; being more especially scared by the multitude of serpents with which the mud and slime of this newly emerged tract is related to have then abounded; and to which numerous accidents are ascribed, until *Puresfram* taught the inhabitants to propitiate these animals, by introducing the worship of them and of their images, which became from that period objects of adoration.

III. The country of *Mulyalum* was, according to the *Kerul Oodputtee*, afterwards divided into the four following Tookrees, or divisions:

1st. From Gowkern, already mentioned, to the Perumbura River, was called the *Tooroo*, or *Turu Rauje*.

2d. From the Perumbura to Poodumputtum was called the *Moshek Rauje*.

3d. From Poodum, or Pooduttun, to the limits of Kunetui, was called the *Kerul* or *Keril Rauje*; and as the principal seat of the ancient government was fixed in this middle division of Malabar, its name prevailed over, and was in course of time understood in a general sense to comprehend the three others.

4th. From Kunety to Kunea Koomary, or Cape Comorin, was called the *Koop Rauje*; and these four grand divisions were parcelled out into a greater number of *Naadhs*, (pronounced *Naars*, and meaning districts or countries,) and of *Kbunds*, or subdivisions, under the latter denomination.

IV. The proportion of the produce of their lands, that the *Bráhmens* are stated to have originally assigned for the support of government, amounted to only one sixth share: but in the same book of *Kerul Oodputtee* they are afterwards said to have divided the country into three equal proportions; one of which was consecrated to supply the expence attending religious worship, another for the support of government, and the third for their own maintenance.

V. However this may be, according to the book above quoted, the *Bráhmens* appear to have first set up, and for some time maintained, a sort of republican or aristocratical government, under two or three principal chiefs, elected to administer the government, which was thus carried on (attended, however, with several intermediate modifications) till, on jealousies arising among themselves, the great body of the *Bráhmen* landholders had recourse to foreign assistance, which terminated, either by conquest or convention, in their receiving to rule over them a *Fermal*, or chief governor, from the Prince of the neighbouring country of *Chaldesb*,

(a part

(a part of the Southern Carnatic,) and this succession of Viceroys was regularly changed and relieved every twelve years; till at length one of those officers, named *Sbeo Ram*, or (according to the *Malabar* book) *Shermanoo Permaloo*, and by others called *Cberuma Perumal*, appears to have rendered himself so popular during his government, that, (as seems the most probable deduction from the obscure accounts of this transaction in the copy obtained of the *Kerul Oodputtee*, compared with other authorities,) at the expiration of its term, he was enabled, by the encouragement of those over whom his delegated sway had extended, to confirm his own authority, and to set at defiance that of his late sovereign, the Prince or King of *Chaldehy*, who is known in their books by the name of Rajah *Kishen Rao*; and who having sent an army into Malabar with a view to recover his authority, is stated to have been successfully withstood by *Shermanoo* and the Malabarians; an event which is supposed to have happened about 1000 years anterior to the present period; and is otherwise worthy of notice, as being the epoch from which all the Rajahs and chief *Nayrs*, and the other titled and principal lords and landholders of Malabar, date their ancestors' acquisition of sovereignty and rule in that country; all which the greater part of their present representatives do uniformly assert to have been derived from the grants thus made by *Shermanoo Permaloo*, who, becoming after the defeat of *Kishen Rao's* army, either tired of his situation, or, from having (as is the vulgar belief) become a convert to Mahomedanism, and being thence desirous to visit Arabia, is reported to have made, before his departure, a general division of Malabar among his dependents, the ancestors of its present chieftains.

VI. The book entitled *Kerul Oodputtee* (which, however locally respected, is, at least in the copy I procured of it, not a little confused and incoherent) mentions that, after this defeat of *Kishen Rao's* army, *Shunker*, a supposed son of *Mabadeo*, (the principal of the Hindu Gods,) regulated the casts in Malabar, and restricted the various subdivisions of the four general tribes to their particular duties, down to the lowest orders of the fourth, consisting of the artificers, tillers of the soil, and inhabitants of the woods, whom he declared it unlawful for the other casts to approach, inasmuch, that the bare meeting with them on the road entailed pollution, for which the party of the superior cast is required to bathe*.

VII. It

* Of the several casts in Malabar, and their distinctions, I received the following summary account from the Rajah of Cartinad. 1. *Namboory Bráhmens*. 2. *Nayrs*, each of various denominations. 3. *Teer*. 4. *Malere*. 5. *Polere*, called (he

VII. It is the received tradition among the Malabars, that *Sbermanoo Permaloo* was, just at the completion of the distribution of the Malabar country, applied to for some provisions by an *Erary*, or person of the cow-herd cast; who, with his brother, had, during the preceding warfare, come from their native town of Poondra (on the banks of the Cavery, near Errode) to his assistance, and had proved the principal cause of his success against Rajah *Kishen Rao's* army, upon which *Sbermanoo*, having little or nothing else left, made a grant to him of the very narrow limits of his own place of abode at Calicut; and having further bestowed on him his own sword and ankle chainlet, and other insignia of dignity, and presented him with water and flowers, (which appears to have been uniformly the ancient symbol of donation and transfer of property in this part of India,) he authorised and instructed him to extend his own dominions by arms, over as much of the country as he should find desirable; a discretion which this adventurer (who is the ancestor of the present *Samoory* or *Zamorin*) immediately began to act upon, and to endeavour to carry its object into execution, by the forcible acquisition of the districts adjoining to the present city of Calicut; and ever since his family appear to have, in the true spirit of their original grant, (which is the boast

(he says) *Ders* in Hindostan. The *Teers* are cultivators of the ground, but freemen. The *Maleres* are musicians and conjurers, and also freemen. The *Poleres*, or *Polhars*, are bondsmen, attached to the soil in the lower part of Malabar, in like manner as are the *Puniers* above the Ghauts. The proper name of the Ghaut hills is, the Rajah adds, *Sukhien Purbut*, or hills of *Sukhien*, with the guttural *Kh* pronounced as

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N. B. *Pouliats* and *Poulichis*, mentioned by RAYNAL, are only the one the male, and the other the female, of *Polere* aforesaid. The system of observations in regard to distance to be observed by the several casts in Malabar, are (according to the Rajah of Cartinad's explanation) as under specified.

1. A *Nayr* may approach, but must not touch, a *Namboory Bráhmén*.

A *Teer* is to remain thirty-six steps off from one.

A *Malere* three or four steps further.

A *Polere* ninety-six steps.

2. A *Teer* is to remain twelve steps distant from a *Nayr*.

A *Malere* three or four steps further.

A *Polere* ninety-six steps.

3. A *Malere* may approach, but is not to touch, the *Teer*.

4. A *Polere* is not to come near even to a *Malere*, or any other cast but a *Mapilla*, the name given to the Mahomedans, who are natives of Malabar. If a *Polere* wishes to speak to a *Bráhmén*, or *Nayr*, or *Teer*, or *Malere*, he must stand at the above prescribed distance and cry aloud to them.

If a *Polere* touch a *Bráhmén*, the latter must make expiation by immediately bathing, and reading much of the divine books, and changing his *Bráhmenical* thread. If a *Polere* touch a *Nayr*, he is only to bathe, and so of the other casts.

and

and glory of its present representatives,) been either meditating new conquests, or endeavouring to maintain the acquisitions they have thus achieved by *Sheo Ram*, or *Shermanoo Permaloo's* sword; which they assert to have still preserved as a precious relick, and to have converted into an object of domestic adoration, as the instrument of all the greatness of their house.

VIII. Anterior even to this epoch of the partition of Malabar, the *Nestorians* had settled and planted *Christianity* on this coast; and with those of the Roman Catholic communion, that arrived several centuries after, in consequence of *Vasco de Gama's* discovery, they continue to constitute to this day a considerable body of the lower orders of the present society in *Travancore* and *Cochin*; in which last district there live also the most considerable, or rather, perhaps, the only colony of *Jews* in India.

IX. Of the events that took place from the partition till the above mentioned discovery of Malabar by the *Portuguese* in 1496, I am not possessed of adequate materials to afford any full or sufficiently satisfactory detail; but the principal may, as far as relates to its interior administration, be probably comprized in the wars carried on during this long period by the *Samoory* or *Zamorin* family for its aggrandizement; and in the consequent struggles kept up by the others, and especially the middle and southern principalities, to maintain their independence; for as to attacks from without, I have not been able to trace that they experienced any material ones during this long interval, or that the Prince of Chaldesh was ever able to re-establish his dominion over this southern part of the coast, within the limits assigned by the natives to Malabar Proper, or the tract by them denominated *Mulyalum*, or *Maleyam*.

X. During this period also the Mahommedan religion made great progress in Malabar, as well from the zeal of its more early proselytes in converting the natives, as in purchasing or procuring the children of the poorer classes, and bringing them up in that faith: and these Arabian traders, bringing annually sums of money to the Malabar coast, for the pepper and other spices that they carried from it for the supply of all the rest of the world, received every encouragement, and the fullest protection for their property and religion, from the successive *Samoories*, or *Zamorins*, whence they naturally grew into the habit of rendering that part of the coast the centre of their traffic and residence; and so rivetted had, through these long habits of intercourse, become the connexion between them and the *Samoory's* government, that the latter continued, after the arrival of the *Portuguese*,

most pertinaciously to adhere to, and support, them against these new rivals in the gainful commerce which they had hitherto driven; a predilection that as naturally lead the Rajahs of *Cochin*, and of other petty states, that stood always in fear of the ambition and superior power of the *Samoories*, to afford to the *Portuguese* a kind reception in their ports; from which collisions of interests a very cruel warfare, by sea and land, was for many years carried on between the *Samoories*, or *Zamorins*, and their subjects, Hindus and Mahommedans, aided occasionally by the Egyptians and Turks, on the one part, and the *Portuguese*, with the *Cochin* and other Rajahs as their allies, on the other; of the various successes and reverses in which, the only *Asiatick* relation I have met with, is contained in a work, with which, during my stay in Malabar, I was obligingly favoured by my then colleague, Major (now Lieutenant-Colonel) Dow, who had traced and obtained it in the course of the extensive intercourse that, on terms the most amicable, and in views the most salutary and benign, he had long cultivated with the Mahommedan part of the Malabar community. This book, written in the Arabick language, is said to have been composed by ZEIRREDDIEN MUKHDOM, an Arab, Egyptian, or subject of the Turkish empire; who is thought to have been one of those dispatched to assist the Mahommedan Princes of India, and the *Zamorin*, against the *Portuguese*; and to have, during his stay in India, composed this historical account (which I have translated into *English*) of the warfare in which he bore a part, preceded by (what by many will be considered as the most interesting part of his work) a description of the manners and customs of the natives of *Malabar* at the period of his visit to it more than two centuries ago; relative to both which articles, I shall here insert some of the information acquired by this Mahommedan author, whose relation terminates with the year 987 of the Hejira, answering to the year of our Lord 1579-80.

XI. This author begins with nearly the same account of the conversion of *Shermanoo Permaloo* (whose real or proper name, or rather the epithet bestowed on his station, this mussulman mentions to have been *Shukerwutty*, or *Chuckerwutty*) as has been already noticed from the *Kerul Oodputtee*, with this addition, that it was effected by a company of Dervises from Arabia, who, touching at Crungloor, or Cranganore, (then the seat of government in Malabar,) on their voyage to visit the *Footstep of Adam* *, on that mountain in *Ceylon* which mariners distinguish by the

* This Footstep of Adam is, under the name of *Sreepud*, or the "Holy Foot," equally revered and resorted to by

the name of *Adam's Peak*; and these pilgrims imparting, on that occasion, to the *Permal*, or *Permaloo*, the then recent miracle of *Mahommed's* having divided the *Moon*, the Viceroy was so affected by this instance of supernatural power, and so captivated by the fervid representation of these enthusiasts, that he determined to abandon all for the sake of proceeding with them into Arabia, to have an opportunity of conversing with the Prophet, who was still alive, and had not even then fled from Mecca; for after sojourning some time with the Prophet in Arabia, *Chuckerwutty* (whom *Mahommed* had dignified with the title of *Sultaun Tauje ul Herid*) is mentioned in ZEIRREDDIEN's book to have died on his return, on the first day of the first year of the Hejira, answering to the 16th of July, of the year of our Lord 622, after, however, addressing recommendatory letters to the chiefs in Malabar in favour of sundry of his Mussulman brethren, who were thereby enabled to construct the first mosque or temple of their new faith in that country as early as the 21st year of the Hejira, or A. D. 642.

XII. But although ZEIRREDDIEN (the author I am now quoting) deemed it fit to allow a place in his work to the traditions that he found thus locally to obtain, he fairly avows his own disbelief in them; more especially as to what relates to the supposed conversion of *Sbermanoo Permaloo* *, and his journey to visit the Prophet in Arabia; subjoining also his own opinion, that the Mussulman religion did not acquire any footing, either permanent or extensive, in *Malabar* till towards the latter end of the second century of the *Mahomedan* æra.

XIII. ZEIRREDDIEN next enters into some description of the existing manners of the Malabarians as he found them; after premising that the Malabar country was then divided into a number of more or less extensive independencies; in which

by the *Hindus*, as appears by the relation of a journey made to visit it by a *Fakeer* of this last mentioned persuasion, called PRAUN POORY, now living at *Benares*, who has also travelled as far north as to *Moscow*; and has from memory (since he is disabled from writing, by being of the tribe of *Oordhbahu*, or whose arms and hands remain constantly in a fixed position above their heads) afforded me an opportunity of causing to be committed to writing, an interesting account of his various travels throughout India, as well as into other parts of *Asia*; and on the subject of these *Hindu Fakeers'* propensity to travelling, I may here add, that I saw a few months ago at *Benares*, one of them who had travelled as far as *Pekin*, which he described under the name of *Pechin*; and had passes from the Chinese government in his possession. He mentioned the name of a temple of Hindu adoration as being situated in *Pekin*.

* From this improbability, joined to the unlikely accounts delivered by the *Hindus* themselves, as to the departure of their chief governor, it may not perhaps be deemed too uncharitable, to suspect that *Sbermanoo* disappeared like *Romulus* in a storm, as being, perhaps, found inconvenient to the new situation of independence that the Malabar Princes admit to have, on this occasion, either assumed, or been promoted to.

there:

there were chieftains, commanding from one to two and three hundred, and up to a thousand, and to five, ten, and thirty thousand; and even (which is perhaps an undue amplification) to a lack of men, and upwards; and describing that in some of these countries there were at the same time two *Hakims*, or rulers; in others three, and in some even more; having distinct bodies of men attached to them respectively; whence hatred and warfare were, he observes, sometimes generated between them, which never, however, terminated in any entire separation between the parties; and adding, that at that time the three greatest powers were the *Colafrican* Rajah to the north, the *Samoory* or *Zamorin* in the centre; and farther south a Prince who ruled from the town of Kolum, or Coulim, to Cape Comorin, comprehending the states now held by the Rajah of Travancore.

XIV. The author next proceeds to an enumeration of what he considered as the chief peculiarities in the manners of the Malabarians, from which I shall literally transcribe, into the body of this narrative, the following particulars from the translation of ZEIRREDDIEN'S original work; subjoining in notes such particulars as my own enquiries, or other information, may tend to corroborate, define, or illustrate, in respect to some of the circumstances he has related.

1st. " If their ruler be slain in war, his army become quite desperate, and will
 " so violently attack and press upon their said deceased ruler's enemy, and upon
 " the troops of the latter, and so obstinately persevere in forcing their way into
 " his country, and to ruin it, that either they will completely in this way affect
 " their revenge, or continue their efforts till none of them survive; and therefore
 " the killing of a ruler is greatly dreaded, and never commanded; and this is a
 " very ancient custom of theirs, which in modern times has, however, fallen with
 " the majority in disuse.

2d. " The rulers of Malabar are of two classes or parties, one of which acts in
 " support of the *Samoory* Rajah, whilst the other party acts in concert with the
 " *Hakim* of *Cochin*; which is the general system, and only deviated from occasion-
 " ally from particular causes; but as soon as these cease to operate, the party na-
 " turally returns again to the ancient usage. These leaders are never guilty of
 " backwardness or failure in war, but will fix a day to fight on, and punctually
 " adhere thereto; nor will they commit treachery in the conduct of it.

3d. " On the death of any principal or superior person among them, such as fa-
 " ther, mother, and elder brother, in the cast of *Bráhmens*, (whilst among carpen-
 " ters, and the lower casts, the superiors and principal persons are the mother and
 " mother's

“ mother’s brother, or one’s own elder brother, as among the *Nayrs*,) when any
 “ one dies of the description of a superior, as above mentioned, his surviving rela-
 “ tive is to remain apart for a twelvemonth; during which time he is not to co-
 “ habit with his wife, or to eat the flesh of animals, or to chew the beetle leaf, or
 “ cut the hair of his head, or his nails: nor can any deviation be admitted from
 “ this practice, which is reckoned for the good of the defunct.

4th. “ It is certain that among the body of *Nayrs*, and their relatives, the
 “ right of succession and inheritance vests in the brother of the mother, or goes
 “ otherwise to the sister’s son, or to some of the maternal relations; for the son is
 “ not to obtain the property, country, or succession of the father; which custom
 “ hath for a long time prevailed; and I (the author) say, that among the *Moslems*
 “ of *Cannanore* they do not bequeath or give their heritage to their sons, which is
 “ also the rule with the inhabitants in that vicinity, notwithstanding that these
 “ said persons, who do thus exclude their sons, be well read in the *Koran*, and have
 “ imbibed its precepts, and are men of study and piety *. However, among the
 “ *Brábmens*, goldsmiths, carpenters, and iron-smiths, and *Teers*, or lower orders of
 “ husbandmen; and fishermen, &c. the son does succeed to the rights and property
 “ of the father; and marriage is practised among these casts.

5th. “ But the *Nayrs* practise not marriage, except as far as may be implied from
 “ their tying a thread round the neck of the woman at the first occasion; where-
 “ fore the acts and practical maxims of this sect are suited to their condition, and
 “ they look upon the existence or non-existence of the matrimonial contract as
 “ equally indifferent.

6th. “ Among the *Brábmens*, where there are more brothers than one, only
 “ their elder, or the oldest of all of them, will marry, provided he have had, or be
 “ likely to have, male issue; but these brothers who thus maintain celibacy, do
 “ nevertheless cohabit with *Nayr* women, without marriage, in the way of the
 “ *Nayrs*; and if, through such intercourse, a son should be born, they will not
 “ make such child their heir. But when it becomes known that the elder mar-
 “ ried brother (in a family of *Brábmens*) will not have a son, then another of the
 “ brothers enters into the state of matrimony.

* I have, however, reason to believe, that this rule and custom is now wearing out among the *Mapillas*, or Malabar Mahommedans; continuing, however, to be still more particularly observed at Cannanore and Tellicherry: but, even in this last mentioned place, I was informed by KARIAT MOOSA, a principal merchant of this sect, that it is evaded by fathers dividing among their sons much of their property during their life-time.

7th. “ Among the *Nayrs* it is the custom for one *Nayr* woman to have attached
 “ to her two males, or four, or perhaps more *; and among these a distribution
 “ of time is made so as to afford to each one night, in like manner as a similar
 “ distribution of time is made among the true believers of Malabar for cohabiting
 “ with their wives; and it but rarely happens that enmity and jealousy break
 “ out among them on this account.

8th. “ The lower casts, such as carpenters, iron-smiths, and others, have fallen
 “ into the imitation of their superiors, the *Nayrs*, with this difference, however,
 “ that the joint concern in a female is, among these last, limited to the brethren
 “ and male relations by blood †, to the end that no alienation may take place in
 “ the course of the succession and the right of inheritance.

9th. “ Among the *Nayrs* the whole body is kept uncovered, except a little
 “ about the middle. They make no difference in male or female attire; and
 “ among their kings and lords, none of them think of shrouding their women from
 “ the sight of all mankind; though among the *Bráhmens* this modesty and deco-
 “ rum are attended to.

10th. “ Among the *Nayrs*, they dress out and adorn their women with jewels
 “ and fine apparel, and bring them out into large companies, to have them seen
 “ and admired by all the world.

* This description ought, I believe, to be understood of the *Nayrs* inhabiting the more southern parts of Malabar, from the Toorecherie, or Cotta river, to Cape Comorin; for to the northward of the said river the *Nayr* women are said to be prohibited from having more than one male connection at a time; for failure in which she is liable to chastisement; without, however, incurring loss of cast, unless the paramour be of a lower tribe than her own.

† “ Alone in lewdness, riotous and free,

“ No spousal rights withhold, and no degree;

“ In unendear'd embraces free they blend,

“ Yet but the husband's kindred may ascend,

“ The nuptial couch. Alas! too blest, they know

“ Nor jealousy's suspense, nor burning woe;

“ The bitter drops which oft from dear affection flow.” MICKLE'S CAMOENS, Book vii.

This custom prevails among the five low casts of *Teer*; of *Agaree*, or carpenters; *Muzalie*, or brass-founders; *Tattam*, or gold-smiths; and *Kollen Perimcollen*, or black-smiths; who live promiscuously with one or more women: and sometimes two, three, four, or more brothers cohabit with one woman. The child, or children, who are the offspring of this connection, inherit the property of the whole fraternity; and whenever the female of the house is engaged with either of the brethren, his knife is said to be hung up at the door of the apartment as a signal of its being occupied. It is, however, but justice to add, that this custom is said to be local, and practised only in a few of the southern districts; and even among these five casts there is no prohibition against any man's keeping for himself, either one or as many women as he can maintain.

11th. “ Among the *Malabars*, priority in age stamps superiority and rule,
 “ were the difference only of a moment; and, notwithstanding that such party
 “ may be a fool, or blind, or aged, or otherwise, the rulership devolves to the
 “ sister’s children; nor has it ever been heard that any one put to death his elder
 “ with a view of sooner attaining to dominion *.

12th. “ In case the line of descent and succession become extinct among them,
 “ or be in danger of becoming so, they do then bring an alien, (whether an adult
 “ or minor,) and him they constitute the inheritor, as the substitute for a son, or
 “ for a brother, or for a sister’s son; nor will any future difference be made be-
 “ tween such adopted and a real heir; which custom is current and observed
 “ among all the infidels of Malabar, whether Rajahs or Shopkeepers, from the
 “ highest to the lowest; so that the line of descent becomes not extinct †.

13th. “ They have, moreover, subjected themselves to a multitude of incon-
 “ veniencies, or difficult observances, which they do, nevertheless, steadfastly ad-
 “ here to; as, for instance, they have arranged and limited the fitness of things
 “ as respectively applicable to the higher, middle, and lower ranks, in such man-
 “ ner, that if a person of the higher, and one of the lower, happen to meet, or
 “ rather to approach each other, the proper distance to be observed between them
 “ is known and defined; and if this distance be encroached upon, he of the higher
 “ cast must bathe; nor can he lawfully touch food before undergoing this purifi-
 “ cation; or if he do, he falls from his dignity, to which he cannot be raised
 “ again; nor has he any other resource than to betake himself to flight, and, for-
 “ saking his abode, to proceed where his situation is unknown; and should he not
 “ thus flee, the ruler of the country is to apprehend him, and shall sell him to
 “ some mean person, should even the party incurring this disgrace be a child or a
 “ woman; or otherwise he may resort to the *Moslems*, and possess the *Islam* ‡, or
 “ else become a *Jogui*, or a *Fringy*, i. e. a *Christian*.

14th.

* Thus in the *Zamorins*’ families, and in that of the Rajahs of *Paulghaut*, there are from fifty to an hundred or more males of the same blood, i. e. descended from females of the Rajah’s family, who are all entitled to, and do accordingly rise to, the chief rule, agreeably to their seniority in point of birth, without any other right or title of precedence.

† This is in general true: but there lately occurred an instance to the contrary, whereby the *Rauje* or Lordship of *Vittulnaad* has escheated to the Company. With respect to the provision occasionally made against such extinctions of families, it is very true that the Rajahs make it a practice, in case of any impending danger of this kind, to procure some males and females (though of the latter more than of the former) to keep up the regal line.

‡ This is one of the reasons assigned to me by a Rajah of the *Zamorin* family, for the number of *Mapilla Mussulmans* being

14th. “ In like manner it is prohibited for those of a lower degree to dress food for a higher; and if any one partake of such a meal, he must fall from his rank.

15th. “ Those who are entitled to wear the *Zunaar*, or *Brábménical* thread, are superior to, and more noble than, all the classes of the *Infidels* of Malabar; and among these *Zunaar* wearers there are also the higher, middle, and lower. Of the first are the *Brábmens*, who are above all others the most respectable; and these also have among themselves the same distinctions of first, second, and third degrees.

16th. “ The *Nayrs* of Malabar follow the martial profession*, and exceed both in numbers and dignity, having sundry degrees among themselves; and inferior to them in cast are the *Teers*, whose practice it is to climb up the cocoa-nut trees, and to bring down the fruit, and to extract the intoxicating juice thereof, called *toddy*; and below these *Teers* are the carpenters, smiths, goldsmiths, fishermen, &c. and under these again, in respect of degree, are the *Poleres*, or *Poliars*, (i. e. ploughmen,) and those of other base casts, engaged in the manual part of husbandry; and among whom also are other subordinate degrees of distinction†.

being now greater in the *Calicut* districts than the *Hindus* and *Nayrs*; namely, the nicety of their observances, and facility of losing cast; which drives the parties, from necessity, into the pale of *Islamism*. The same Rajah mentioned, on this occasion, the custom of the *Namboory Brábmens*, who thus disposed of their own women, without incurring any disparagement of cast, to the *Mapillas*; which rule holds also good in respect to other females, as intimated in the first note page 818, and in the sequel of ZEIRREDDIEN's text.

* *Póliar* the labouring lower clans are named;

By the proud *Nayrs* the noble rank is claimed;

The toils of culture and of art they scorn:

The shining faulchion brandish'd in the right,

Their left arm wields the target in the fight.

CAMŌENS, Book vii.

These lines, and especially the two last, contain a good description of a *Nayr*, who walks along, holding up his naked sword with the same kind of unconcern, as travellers in other countries carry in their hands a cane or walking-staff. I have observed others of them have it fastened to their back, the hilt being stuck in their waistband, and the blade rising up, and glittering between the shoulders. It must not, however, be inferred, that all the *Nayrs* betake themselves, at present, to the martial profession; for, according to the information collected for me with much care on the customs of that country by the late Lieutenant MAC LEAN (who was *Malabar translator* to the commission of which I was a member), there are supposed to be thirty distinct classes of this general tribe; many of whom do now apply to the peaceable arts of husbandry, penmanship and account, weaving, carpenter's work, pottery, oil making, and the like; though formerly they are all said to have been liable to be called upon by their respective sovereigns to perform military service.

† For a farther account of these casts, see note page 811, and second note page 818.

17th. “ If a stone light from a *Polere* on a woman of a superior rank on a particular night, which is marked out for this in the year, then that woman must be excluded from her rank ; and although she shall not have seen the said man, nor been touched by him, yet still her lord shall make a conveyance of her by sale ; or she shall become a *Moslem*, or a *Christian*, or a female *Jogui* ; and this custom is general *.

18. “ In cases of fornication (or what is locally deemed the illicit intercourse between the sexes), if the parties differ much in degree, the higher loses his or her rank ; nor has he or she any other resource than the one above-mentioned : yet, if a *Brábmén* fornicate with a *Nayr* woman, he shall not thereby lose his cast ; there being between those two old tribes that anciently established connection which hath been already noticed.

19th. “ Such are the painful observances which they have entailed on themselves, through their own ignorance and want of knowledge, which God Almighty hath, however, in his mercy, rendered the means of encreasing the number of the faithful †.”

XV. Our *Mahommedan* author then proceeds to mention, that the towns built along the coast of *Malabar* owed their origin to, and were principally constructed by, the Mahommedan traders ‡, who, though not then amounting to a tithe of the general population, were much courted by the several Rajahs, and more especially by the *Zamorin*, to frequent his port of Calicut, on account of the duty of ten per cent. that was levied on their trade.

XVI. The arrival of the fleets of the Portuguese, the first under *Vasco de Gama*, in the 904th year of the Higeree, (corresponding with the year of our Lord 1498,) and of that conducted by *Cabral*, a few years thereafter, with the negociations, jealousies, and wars that ensued thereon, are next related by our author, in a manner easily enough reconcileable to the accounts of the same transactions already published throughout Europe. He ascribes the Europeans resorting to India, to

* I have allowed this paragraph of ZEIRREDDIEN's text to stand inserted in the order of his own enumeration, because it is connected with the one that follows ; though the custom it refers to seems so unreasonable, that, as I never had occasion to hear it corroborated by the report of the natives, I cannot vouch for its being well founded.

† In the manner adverted to in the second note page 819. And here closes, for the present, the literal extract I have made from ZEIRREDDIEN's performance, which, for distinction sake, I have marked with inverted commas.

‡ The principally current Malabar æra is stated in the account ascribed to the Bishop of Verapoli (as already quoted in the note page 809) to have been fixed from the building of the city of *Coulum*, (by us called Quiloan,) about twenty-four *cadums* (Malabar leagues) or eighty British miles, south of Cochin. It was formerly very famous as the emporium of the coast, and founded in the 825th year of the Christian æra.

their desire to purchase pepper and ginger. Nor does he seek to conceal that, between them and the Mahommedan traders, a commercial jealousy immediately sprang up, which proved the cause of all the bitter wars that were afterwards carried on, by sea and land, by the *Zamorins* and *Mahommedans* on the one part; and the Rajah of *Cochin* (to whose port the Portuguese had sailed, on their breach with the former Prince) and his *European* allies on the other; the former being afterwards reinforced from the Arabian Gulph by a large fleet fitted out under the command of *Ameer Hofaine*, an officer in the service of *Kaunis al Ghowry*, the then reigning Sultaun of Egypt; but these armaments failed of their object; and the *Ghowry* Prince was soon afterwards himself subdued by *Selim*, the Turkish Emperor: and of the treatment which the Mahommedan traders continued, in the mean time, to experience from the *Portuguese*, the follow description is literally taken from the translation of NIZAMEDDIEN'S Treatise.

1st. " The believers of Malabar were established in the most desirable and
 " happy manner, by reason of the inconsiderable degree of oppression experienced
 " from the rulers, who were acquainted with the ancient customs, and were kind
 " to, and protectors of, the Mussulmans; and the subjects lived satisfied and con-
 " tented; but sinned so, that God turned from them, and did therefore command the
 " Europeans of Portugal, who oppressed and distressed the Mahommedan commu-
 " nity by the commission of unlimited enormities, such as beating and deriding
 " them; and sinking and stranding their ships; and spitting in their faces, and on
 " their bodies; and prohibiting them from performing voyages, particularly that
 " to *Mecca*; and plundering their property, and burning their countries and tem-
 " ples; and making prizes of their ships; and kicking and trampling on their (the
 " believers) books, and throwing them into the flames. They also endeavoured
 " to make converts to their own religion; and enjoined churches of their own faith
 " to be consecrated; tempting people, for these objects, with offers of money:
 " and they dressed out their own women in the finest ornaments and apparel, in
 " order thereby to deceive and allure the women of the believers. They did also
 " put *Haji's*, and other Mussulmans, to a variety of cruel deaths; and they reviled
 " and abused with unworthy epithets the Prophet of God; and confined the Ma-
 " hommedans, and loaded them with heavy irons, carrying them about to sale,
 " from shop to shop, as slaves; enhancing their ill usage on these occasions, in
 " order to extort the larger sum for their release. They confined them also in
 " dark, noisome and hedious dungeons; and used to beat them with flippers; tor-
 " turing

“ turing them also with fire ; and selling some into, and retaining others, in
 “ their servitude as their slaves. On some they imposed the severest tasks, with-
 “ out admitting of the smallest relief or exemption. Others they transported into
 “ Guzerat, and into the Concan, and towards Arabia, being places which they
 “ themselves used to frequent, in the view either of settling or sojourning therein,
 “ or of capturing vessels. In this way they accumulated great wealth and property,
 “ making captives also of women of rank, whom they kept in their houses till Eu-
 “ ropean issue was procured from them. These *Portuguese* did in this manner also
 “ seize on many *Seyyuds*, learned and principal men, whom they retained in confine-
 “ ment till they put them to death ; thus prejudicing and distressing the *Mussulmans*
 “ in a thousand ways ; so as that I have not a tongue to tell or describe all the mis-
 “ chiefs and mortifications attendant on such a scene of evil.

2d. “ After this they exerted their utmost efforts (which they had, indeed,
 “ from first to last) to bring the *Mussulmans* within the pale of their religion ;
 “ and they made at length peace with them for a consideration to be paid to them
 “ of ten in the hundred.

3d. “ The Mahommedans residing principally on the sea coasts, it was custo-
 “ mary for the newly arrived *Europeans* (who used to resort annually to India at
 “ the appointed seasons) deridingly to ask the persons settled of their nation at the
 “ sea-ports, whether, and why, they (these settled *Portuguese*) had not yet done
 “ away the appearance of these people the *Mussulmans*? reviling thereon their
 “ own chiefs for not abolishing the Mahommedan religion ; in the prosecution of
 “ which view the heads of the *Portuguese* desired the *Hakim* of *Cochin* to expel
 “ the *Mussulmans* from his city, promising thereon to prove themselves the means
 “ of his reaping double the profit which accrued to him from their traffick ; but
 “ the *Hakim* of *Cochin* answered, ‘ These are my subjects from days of old ; and
 “ it is they who have erected my city ; so that it is not possible for me to expel
 “ them.’ ”

XVII. The war thus continued till the *Portuguese*, who had been originally permitted to construct forts at Cochin and Cannanore, obliged the *Zamorin* to admit of their erecting one also at Calicut.

XVIII. They had also made themselves masters of Goa from the *Adel Sabi* dynasty of the *Bejapoor* Kings in *Decan* ; nor could any of the ships of the Mahommedans sail in safety to either gulph, without being furnished with *Christian* passes.

XIX. In the *Hejira* year 931, answering to A.D. 1524-5, the Mahommedans appear by ZEIRREDDIEN's narrative, to have (countenanced, no doubt, and probably actively assisted by their friend the *Zamorin*) been engaged in a barbarous war, or attack, on the *Jews* of *Cranganore*, many of whom our author acknowledges their having put to death without mercy; burning and destroying, at the same time, their houses and synagogues, from which devastation they returned, and enabled their great protector, the *Zamorin*, to expel, in the course of the following year, the *Portuguese* from *Calicut*.

XX. But the latter shortly afterwards re-established themselves in the vicinity of that capital, and were even permitted to build a fort within a few miles of it, at a place called *Sbaliaut*, of which they are related to have retained possession for upwards of thirty years, and till in or about the year 1571, they were, after a long siege, compelled to capitulate; whereupon the *Zamorin* is stated by NIZAMEDDIEN to have so completely demolished their fortress, as not to leave one stone of it standing on another.

XXI. The *Portuguese* proved, however, more permanently successful in an acquisition they made in the province or (at that time) kingdom of *Guzerat*; where, according to my author, they, in the year 943, or A.D. 1536-7, obtained from *Behader Shah*, its monarch, (whom they are charged by ZEIRREDDIEN with having afterwards slain,) the cession of the fortress of *Diu*, of which they still retain possession.

XXII. The author, ZEIRREDDIEN, places within the following year the Portuguese building a fort at *Cranganore*, and their successful resistance at *Diu*, to an expedition fitted out against them from Egypt, by command of the Ottoman Emperor *Solyman*, whose *basha*, or commander, is represented to have retired in a discreditable manner from the contest.

XXIII. This author places subsequent to the *Hejira* year 963, A.D. 1556, a difference that ensued between the Portuguese and *Ali Rajah* *, the Mahommedan chief of *Cannanore*; and to whom belonged also the *Laccadivian Islands*, which on this occasion, ZEIRREDDIEN charges the Christians with having barbarously ravaged; and towards the close of his historical detail, he inserts the following notice

* The head of this principality of *Cannanore* (of which a female, known by the name of the *Beeby*, is the present representative) is also called *Ali Rajah*, which, in the Malabar tongue, may be interpreted "Lord of the Sea;" a distinction affected (as I have heard) from this family's having long possessed the *Laccadives*, whence they have occasionally invaded the *Maldives*; the *Badsha*, or monarch, of which is said to be to this day jealous of them on that account.

of the result of the long and bloody competition between them and the Mahomedans for the trade of the east.

ist. “ It pleasing the Almighty to try the fidelity of his servants, he gave scope
 “ to the Portuguese, and bestowed on them the mastery of a number of sea-ports ;
 “ such as those in Malabar, and in Guzerat, and in Concan, &c. and they became
 “ rulers in all the towns and cities, and swarmed therein, and reared fortresses in Hur-
 “ muz, (Ormus,) Saket, Diu, Mehel, and in Sumatra, and at Malacca, and Milkoop ;
 “ and at Mylatoor, and Nagputtun, and Ajuram, and in the ports of Shoulmun-
 “ dul, (Coromandel,) with many also in those of Ceylon. They navigated also as
 “ far as China ; and their commerce extended throughout all these and other ports ;
 “ and the Mahomedan merchants sunk under their superior influence, and be-
 “ came obedient to them and their servants ; having no longer any power to
 “ trade themselves, unless in such articles as the Portuguese did not much like to
 “ deal in : nor requires it to be suggested, that their choice fell upon those com-
 “ modities that yielded the largest profit ; all which they exclusively reserved,
 “ without allowing any one else to trade therein.”

XXIV. The traveller, CÆSAR FREDERICKE, having been on the Malabar coast about the time that ZEIRREDDIEN’s history closes, it may tend to contrast the preceding state of facts according to our *Mahomedan* author’s view of them, to subjoin his *Christian* cotemporary’s account of some of the same circumstances.

XXV. Treating of Barcelore, a town on the northern part of the Malabar coast, FREDERICKE continues, (in the words of his old English translator,) “ and from
 “ thence you shall go to a city called Cannanore, which is a harquebush-shot
 “ distant from the chiefest city that the King of Cannanore hath in his kingdom,
 “ being a King of the *Gentiles* ; and he and his are very naughty and malicious
 “ people ; always having delight to be in war with the *Portugals* ; and when they
 “ are in peace, it is for their interest to let their merchandize pass. From Cannanore you go to Cranganore, which is another small fort of the Portugals, in the
 “ land of the King of Cranganore, which is another King of the *Gentiles*, and a
 “ country of small importance, and of an hundred and twenty miles, full of thieves,
 “ being under the King of Calicut, (the *Zamorin*,) a King also of the *Gentiles*,
 “ and a great enemy to the Portugals, with whom he is always in war ; and he
 “ and his country are the nest and resting for stranger thieves, and those be called
 “ *Moors of Carposá*, because they wear on their heads long red hats ; and thieves
 “ part the spoils that they take on the sea with the King of Calicut, for he giveth
 “ leave

“ leave unto all that will go a roving, liberally to go ; in such wise that all along
 “ that coast there is such a number of thieves, that there is no sailing in those
 “ seas, but with great ships, and very well armed ; or else they must go in compa-
 “ ny with the army of the Portugals.”

XXVI. Upon the decline of the *Portuguese* power, the *Dutch*, establishing themselves on the Malabar coast, took from the former the fortresses of Cannanore and Cochin : and about the same period, or as early as 1664, the *English East-India Company* appear, by the records at Tellicherry, to have begun to traffick in the *Zamorin's* dominions, in the southern districts of Malabar, as well as to have obtained, in 1708, in the northern parts of the same coast, a grant of the fort of Tellicherry, from the *Colastry*, or *Cherical Rajah*, the limits of which they soon extended on the south side, by the successful termination of a warfare, which they had in 1719 with the *Corngotte Nayr*, who also agreed that they should enjoy the exclusive trade of pepper duty free within his country ; an acquisition which was followed in 1722, by their obtaining a similar exclusive privilege (with a reservation in favour of the *Dutch* trade alone) throughout the more extensive country of Cherical : and in 1725 they concluded a peace with the Rajah of the district of Cartinad ; by which they became entitled to the pre-emption of all the pepper and cardamums it produced ; acquiring also similar exclusive privileges in Cottiate in 1759 : and in this manner so rapid appears to have been the extension of the power and influence of the British Nation on that part of the coast, that in 1727 the Company's servants at Tellicherry mediated a peace between the Kings of Canara and Colastria, under which circumstances they added, in 1734-5, the island of Dermapatam, and the fort of Madacara, to their possessions, together with the entire last mentioned island in the year 1749, with power to administer justice therein, on the same footing as at Tellicherry : and they appear, in short, to have been from this period courted, respected, and feared, by all the Rajahs and Chiefs within the limits of the ancient Colastrian kingdom, with which their good intelligence suffered, however, a temporary interruption, in consequence of the Company's Government having, in 1751, entered into a treaty with the Canarese King of Bednore ; whereby, for the consideration of a factory at Onore, and a freedom of trade in his dominions, they agreed to assist him in the prosecution of that Prince's then meditated continuation of hostilities against the country of Colastria : but the former harmony was again established in 1757, when a new treaty of mutual defence was concluded between the company and the Rajah of Cherical ; and such
 appears

appears to have been in general the progress of the British influence, that the *English East-India Company* became every where entitled to superior or exclusive advantages in purchasing the valuable products of the country, viz. pepper, cardamums, and sandal-wood; and at last obtained, in 1761, from the Rajah of Cherical, the further important privilege of collecting for their own behalf, the custom-house duties and tolls within their own territories, for the moderate consideration of a fixed quit-rent of 21,000 silver fanams, or 42,000 rupees per annum, to be paid to his government: in addition to all which, he and the other Rajahs had by this time successively yielded up their right to all wrecks or stranding of the Company's vessels or property; an article which, with the customs on merchandize, constituted two of the most inherent and acknowledged rights of the Malabar Princes at that period.

XXVII. For otherwise those Rajahs' rights in general did not then extend to the exaction of any regular, settled, or fixed revenue from their subjects, the original constitution of their government only entitling them to call on their vassals, the *Bráhmén* and *Nayr* landholders, for military service: but, although this general exemption from any land-tax is stated to have thus universally prevailed, in the early times of the Rajahs' governments, it is, however, allowed, that they were occasionally subject to some contribution for the extraordinary exigencies of defence against the invasion of foreign enemies, such as the Canarese and Portuguese: and in Cherical, and also in the *Samoory's* dominions, the custom was at length introduced, or, perhaps, rather continued, from the earliest period, (as intimated in Section VI.) of the Rajahs' levying from the lands (excepting, perhaps, those appertaining to the temples) a settled revenue or income, in money or kind, equal to one fifth of the produce: and the Rajahs held also large domains of their own, which, with the customs on trade, and mint duties, might have been sufficient for the maintenance of their ordinary state; more especially as, in addition to these rights, they, under the head of *Pooreshandrum*, exacted from the *Mapillas* (i.e. the descendants of the Mussulmans*) a share of the estates of all deceased persons; whilst,

* Of the term *Mahapilla*, or *Mapilla*, I have heard many derivations; one of which was given me by a *Cauzy* of their own tribe, who scrupled not (whether jocularly, or otherwise, I cannot determine) to combine it of the two *Hindee* words *Mah*, mother, and *Pilla*, a puppy; intimating, that it was a term of reproach fixed on them by the Hindoos, who certainly rate them below all their own creditable castes, and put them on a footing with the *Christians* and *Jews*; to the former of whom (if not to both) they apply the same name: and thus the Christians of St. Thomas are distinguished by the name of the *Syrian Mapillas*: but I rather confide in the more reasonable derivation I obtained through

whilst, under the donation of *Cberadayam*, they derived a considerable casual, though constant, revenue from the fines levied on crimes and offences; as well as from another article, called *Chungadum*, or protection money, received from the support and countenance granted by one Rajah to the subjects of another; and from the escheats of the estates of those of their Hindu subjects who died without heirs; and from *Talapanam*, (which was a kind of poll-tax;) and from the presents made by their subjects on the two annual festival days of ONAM and VISHOO; and other certain annual offerings; together with a few professional taxes paid by distillers, weavers, and fishermen, among the lower casts: besides all which, they claimed, as royalties, all gold ore *, and all elephants, and the teeth of that animal; and all game, together with cardamum and *Sagwan*, or teek trees, and bamboos, and honey, and wax, and the hides of tigers, and the fins of all sharks caught, (forming a considerable article of trade,) and the wreck (as above specified) of all vessels stranded on their coasts.

XXVIII. The Chiefs who (under the denomination of the Rajahs, with the exception of a few independent *Nayr* landholders) have thus, for so long a succession of centuries, governed Malabar, are mostly of the *Kbetrie*, or second tribe of Hindus; but the *Cberical* and *Samoory* (who were the two principal families in point of extent of dominions) are of the *Samunt* or *Erary* (i. e. cowherd) cast; as is also the Rajah of Travancore, who is a branch of the original *Colafrican* or *Cberical* family: And the mode of succession that has time out of mind been established among these Princes (which I the rather add here, as ZEIRREDDIEN has not otherwise than by inference touched at all on this part of the general subject) is not, as in the rest of India, in favour of their own sons and children, but (as noticed by ZEIRREDDIEN in respect to the *Nayrs*) of their brethren in the female line, and of the sons of their sisters, who do not marry according to the usually received sense of that term in other parts of the world, but form connections of a longer or shorter duration, according to the choice of the parties, for the most part with Ma-

through Lieut. MAC LEAN's researches, viz. that the term is indeed compounded of *Maha*, or *Mahai*, and *Pilla*, though not in the aforesaid *Cauzy's* offensive sense, but as a denomination applied to the first strangers who settled in Malabar, by reason of their being supposed to come from Mocha, which in Malabar is called *Mahai*; whilst *Pilla* is also another Malabar word for a child, or orphan; and from these two words the Mapillas are said to take their name of "Children or Natives (or perhaps Outcasts) of Mahai, or Mocha."

* Gold dust is found in a hill called *Nellampoor Mella*, in the talook of *Ernaar* or *Ernaad*.

labar *Bráhmens*, (called *Namboories* *,) and who differ essentially from others of that cast throughout the rest of India, by whom are thus propagated the heirs to all the Malabar principalities, without, however, the reputed fathers having, or pretending to, any paternal claim to the children of these transitory engagements, who, divided under each Rajahship into distinct branches, called *Quilon*, or *Kolgum*, or *Kollum*, i. e. families or palaces, succeed (as has been already intimated) to the chief Rajahship, or supreme rule, by seniority; whilst the next senior, or heir-apparent, is stiled the first; and the others, or the heirs in expectancy, are (as for instance, in the *Samoory's* family) distinguished by the titles of the second, third, fourth, or fifth Rajahs; as far down as which they are called general Rajahs; and being deemed more especially to belong to the state, form a kind of permanent council to the *Zamorin*; whilst all those males of the family who are more than five removes from the senior, or Zamorinship, continue to be distinguished as first, second, or third Rajah of such a Kolgum or palace, (meaning the house or branch of the family they were born in,) and rise thus, as it were, in their own corps, till, by reaching within four or five of the head, they become heirs general: and as from this mode of succession the chief Rajah is generally superannuated, either the heir-apparent, or one of the younger Rajahs, is often vested, under the title of Regent, with the active part of the administration.

XXIX. In this manner did the *Zamorins'* family, in particular, and the other Rajahs of *Malabar* in general, continue to carry on their government till the year 1766, when HYDER ALI KHAN made the descent on, and conquest of, their country †; of the manner and immediate consequences of which, as far as regards his own house, the following description was given to me by the present *Samoory* or *Zamorin*.

XXX. "In the Malabar year 941, A.D. 1765-6, HYDER ALI KHAN came "with an army of fifty thousand men into *Mulyalum*, or *Mullewar*, (both terms

* *Namboory*, or *Namboodire*, is said by some (according to the explanation furnished to me by Lieutenant MAC LEAN) to be a corruption of *Nambie*, applicable to those whose privilege it is to attend to and perform the religious service in the temples; whilst others assert that the name is derived from *Nama*, and *Poogia*, or *Poogikanna*, to invoke, pray, or perform religious ceremonies. *Nambadie*, or *Nambidie*, a class of inferior *Bráhmens*, said to have become degraded from their ancestor, a *Namboorie*, having been employed by SHERMANOO PERMALOO, and the *Malabarians*, to cut off by treachery (which he effected) CHORA, a former *percimal*, or governor, whom KISSEN RAO had sent back with an army to supersede SHERMANOO, as intimated in Section VII. And besides these, there are above a dozen more subdivisions of the *Bráhmenical* tribe.

† This is to be understood with the exception of *Paulghaut*, which HYDER had possessed himself of four or five years before.

“ meaning the Malabar country,) and waged war with my maternal uncle;
 “ and having defeated him, took possession of his dominion. My uncle sent a
 “ vakeel (or ambassador) to HYDER ALI KHAN, to request that his country might
 “ be restored to him, and agreed to pay any tribute which might be set-
 “ tled. *Hyder* gave a very favourable reception to the ambassador, but inform-
 “ ed him, that, as he could not place entire reliance on his word, he proposed
 “ himself to depute two persons, by name SREE NEWAUS RAO and MOOKUT
 “ RAO, to the Rajah, to communicate his views; adding, that the Rajah might
 “ trust to his honour, and to go to meet him, when he would settle with him the
 “ terms that might be concerted between them. The vakeel came back with
 “ *Hyder's* men to the late Rajah, and informed him of what had passed; where-
 “ upon the Rajah intimated his apprehensions of *Hyder*, whom he spoke of as a
 “ man of a quarrelsome disposition, and who had disgraced many persons of high
 “ rank, and who would probably be disposed to inflict some mark of disgrace upon
 “ him also; wherefore he (the Rajah) declared, that he would place his reliance
 “ not so much on *Hyder*, as upon the assurances from his two agents, who, being
 “ both *Bráhmens*, he would, on their swearing by their *Bráhmenical threads*, by the
 “ salgram, (a stone sacred among the *Hindus*,) and by their swords, that he should
 “ return in safety, consent to accompany them, to have an interview with *Hyder*;
 “ to all which they agreed; and as *Hyder's* army was at Toorshery, the Rajah, my
 “ uncle, went with *Sree Newaus Rao* and *Mookut Rao* to meet *Hyder*, who ad-
 “ vanced to *Coorumnar*, where the meeting took place.

2d. “ During the interview, they conversed about the country: But *Hyder* soon
 “ broke off the conference, by demanding of the Rajah a crore of gold mohurs;
 “ upon which the latter assured him, if he were to sell the whole of the Calicut
 “ country, he could not get near that sum for it; but that he would deliver the
 “ whole of his treasure, and other property, and pay him as much as was in his
 “ power: yet *Hyder* was not satisfied with this offer, but caused the Rajah to be
 “ seized, and imprisoned; and sent him under a guard of five hundred horse, and
 “ two thousand infantry, to the fort of Calicut; and the Rajah was confined in his
 “ own house without food, and was strictly prohibited from performing the ceremo-
 “ nies of his religion; and as he thought that *Hyder* might inflict some further dis-
 “ grace upon him, either by causing him to be hanged, or blown from a gun, the
 “ Rajah set fire to the house with his own hand, and was consumed in it.”

XXXI. This first acquisition of Malabar by the late *Hyder Ali Khan* was not of
 long duration; for the *Zamorin*, and other Rajahs, took advantage of his entering
 “ into

into war with the *English East-India Company* in 1768, to reinstate themselves: and they maintained possession till 1774, when *Hyder*, descending the Ghauts a second time with an army into the northern parts, and sending another, under *Sree Newaus Rao* through Paulghaut into the Southern division, the Princes of the *Samoory's* family again fled into Travancore: and *Hyder's* direct and immediate government and administration appear from that period to have permanently pervaded, and become, in some degree, established, throughout all the southern division of Malabar.

XXXII. For some northern chieftains do not appear to have, on *Hyder's* first or second conquest, forsaken their countries, but agreed to become his tributaries; whilst the southern districts became a prey to almost constant dissensions, arising from the resistance and troubles which the Rajahs of the *Samoory's* family never discontinued to excite against the authority of *Hyder's* government, which was unable either effectually to quell these continued disturbances, or to punish, or even to expel, the authors of them; so that his officers were at length obliged to purchase that quiet which they could not command, by stipulating, in 1779, with one of the representatives of the *Samoory's* house, to allow him to levy a moderate rateable cefs from the country for his own support; the effects of which conciliation could, however, hardly have produced any beneficial effects to the parties, or the inhabitants, before they were again embroiled by the consequences of the attack on and siege of Tellicherry, in 1779-80, and of the general war that followed; during which (that is, after the raising of the siege in question) the Rajahs of the *Samoory's* house took all the part in their power in favour of the British arms, and considerable successes attended their joint efforts in the capture, in 1782, of Calicut, and other places: but, by the peace of 1784, the Malabar countries being again given up, the southern as well as northern Rajahs were left at TIPPoo's mercy, which did not, however, prevent some of the *Samoories* from still lurking in, and occasionally exciting alarm and disturbances, throughout the former part of these districts; so that the officers of TIPPoo's government were obliged, in a like manner as their predecessors under that of his father, to induce this family to a peaceable conduct, by bestowing a pension in *Jaghire* upon RUVEE VURMA, one of the most active of its members; which might, perhaps, have led to a closer union between the exiled *Zamorin* and the Mysore government, had not the negotiations to that end been interrupted in consequence of a resolution formed by TIPPoo (in the combined view of indulging his zeal as a *Mahommedan*, and of, at the same time, rooting up, as he fondly might imagine, the causes of that aversion which the

Malabar

Malabar Hindus had hitherto shewn to his government) to attempt the forcible conversion of all his *Hindu* subjects in *Malabar* to the *Mussulman* faith; for which purpose, after ineffectually trying in person the effects of persuasion, in a progress that he made into that country in April, 1788, he directed his officers of Calicut, to begin by seizing on the *Bráhmens*, and to render them examples to the other classes, by enforcing circumcision on them, and compelling them to eat beef; and accordingly many *Bráhmens* were seized in or about the month of July, 1788, and were thus forcibly deprived of their casts; whilst others sought for shelter with the Rajahs of the *Samoory's* family, two or three of whom were then within the Calicut districts; and TIPPoo's having himself made similar constrained conversions of a Rajah of the family of *Perepnaad*, (one of the southern *talooks*,) and of TICHERA TEROOPAR, a principal *Nayr* of *Nelemboor*, in the same southern division of that country, together with some other persons, whom he had for various causes carried up with him into Coimbitoor, these combined circumstances, and the return of the above named victims to his bigotry, some short time thereafter into *Malabar*, spread considerable alarm; and the injured parties, as well as the great body of *Nayrs* and *Hindus*, who justly feared for what might happen to themselves, rallied around, and looked principally up to, that Prince of the *Samoory's* family, called the Younger RUVÉE VURMA, (who with his elder brother, of the same name, had some years before forced HYDER's officers to purchase their temporary and doubtful neutrality,) through whose assistance upwards of thirty thousand *Bráhmens* (including their wives and families) escaped from July to November, 1788, from the Calicut districts into Travancore; besides which, resenting these oppressions by TIPPoo on those of his sect and religion, RUVÉE VURMA proceeded to open hostilities with the officers of TIPPoo's government, and proving victorious, and being assisted by the *Nelemboor* and *Perepnaad* converts, as well as by the *Nayrs* in general, and even by some of the *Mapillas*, a general insurrection took place throughout the southern districts, and the insurgents becoming masters of the open country, invested Calicut, so that TIPPoo found it necessary to dispatch *Monsieur Lally* with a strong force to its relief, on whose arrival the Rajah retreated, and was afterwards attacked in different places, without, however, being driven quite out of the field; insomuch that TIPPoo, fearing, perhaps, for the stability of his dominion in *Malabar*, followed *Monsieur Lally* in person, in January or February, 1789; at which period his designs were generally reported to aim at the entire conversion, or extirpation, of the whole race of Rajahs, *Nayrs*, and other *Hindus*;

many

many of whom were accordingly seized on, and circumcised; whilst others escaped; or, failing in the attempt, put themselves to death, to avoid loss of cast; one affecting instance of which is related of the Rajah of Cherical, who, finding that he was also to be circumcised, attempted to escape; and being pursued by TIPPoo's troops, and seeing no likelihood of being able to maintain any longer resistance against them, he, after providing for the safety of his sister and her son, by sending them off to Travancore, preferred for himself a voluntary death to the ignominy that he knew awaited his survivance; and he accordingly died either by his own hand, or by that of a friendly *Nayr*, whom he is said to have required to perform this last mournful office for him; whereupon TIPPoo, disappointed of his prey, seized on the dead Rajah's effects and country, which he continued to hold till finally deprived, by the *British* arms, of that, and the greater of his Malabar territories, by the successful war that terminated by the peace, and his consequent cession of that country, in the year 1792; since which the *Zamorin*, and all the other Rajahs, have returned to their districts; into which they have been re-admitted, in full subordination to the Company's Government, which can alone beneficially conduct the administration of that coast in its present circumstances, and administer equal and impartial justice to the two great classes of *Hindus* and *Mahommedans*, of which the present society consists; and who, still smarting under the impression of the injuries they reciprocally inflicted and suffered during the turbulent and calamitous period of the *Mysore* dominion, can hardly be deemed to be in temper to qualify either to stand towards each other in the relation of sovereign and subject; more especially as the authority would have reverted, and the consequent retaliation have no doubt been exercised, (as was in some instances at first attempted,) by those who had been, during the last twenty years, the inferior and suffering party; for the *Mapillas*, or *Mahommedans*, finding themselves, during the preceding disastrous and unsettled administration of the religion of their new Prince, had availed themselves of that powerful circumstance in their favour, to molest, despoil, and (as far as in them lay) to ruin their former *Hindu* superiors; so that the bitterness of the enmity between the two sects had risen to the highest pitch of rancour, and will no doubt require a course of years to subside, or to give place to a re-establishment of the ancient amity.

XXXIII. It has been already intimated, that the *Mapillas* in the southern districts exceed in numbers the remaining race of *Hindus*; and although many of them, who inhabit the towns on the coast, are industrious and quiet subjects, yet
there

there is a large proportion, called the *Jungle Mapillas*, who, occupying the interior recesses near to the hills, have been so long inured to predatory habits, that some elapse of time must be required fully to reclaim them.

XXXIV. I have thus submitted to the Society the best account which, from the materials in my possession, I have been able to draw up of the History and Manners of the Inhabitants in the new acquisition of the *East-India Company*, excepting as far as regards the *Nestorians*, and other *Christians*, and the *Jews*; the major part of both of whom living to the southward of what are properly the *British* limits, I have not hitherto had any sufficient opportunity of acquiring minute or accurate information respecting them.

II.

AN ACCOUNT OF TWO FAKEERS,

WITH THEIR PORTRAITS.

By JONATHAN DUNCAN, Esq.

I BEG leave to lay before the Society the accompanying Pictures of two *Fakeers*, now living at *Benares*, which I had drawn there from the life. The first is named PURANA POORI, or (as usually pronounced in Hindvee) PRAUN POORY, a *Sunyassy*, distinguished by the epithet *Oordbbahu*, from his arms and his hands being in a fixed position above his head; and as he is a very intelligent man, and has been a great traveller, he consented, in the month of May, 1792, to gratify my curiosity, by allowing to be committed to writing, by a servant of mine, from his verbal delivery in the Hindustan language, a relation of his observations in the various countries into which he has penetrated; but as his account is too long for insertion in the *Asiatick Researches*, (should it even be deemed to merit a place in so respectable a repository,) I have here extracted the principal parts of it, as an accompaniment to the portrait; having only farther to premise, that I have the utmost reliance on our traveller's not designing to impose in any part of his narrative; but allowance must be made for defects of memory, in a relation extending through so many years, and comprehending such a number of objects.

II. PRAUN POORY is a native of *Canouge*, of the *Khetry* or *Raujepoot* tribe. At nine years of age he secretly withdrew from his father's house, and proceeded to the

the city of Bethour, on the banks of the Ganges, where he became a Fakeer, about the time (for he cannot otherwise fix the year) of MUNSOOR ALI KHAN's retreat from Delhi to Lucknow, and two or three years before the sack of Mat'hura by AHMED SHAH ABDALLI; which two events are in SCOTT's "*History of the Dekkan*," related under the years 1751-2 and 1756; within which period he came to *Allabad* to the great annual meeting of pilgrims, where hearing of the merits attached to what he describes as the eighteen different kinds of *Tupisya*, or modes of devotional discipline, he made choice of that of *Oordbbabu*, above noticed; the first operation of which he represents to be very painful, and to require preparation by a previous course of abstinence.

III. He then set out to visit Ramisher, opposite to Ceylon, taking his route by Kalpi, Oujeine, Burahanpoor, Aurungabad, and Elora; the surprising excavations at which place he notices: and crossing the Godavery at Tounker, he passed by Poona, Settara, and various other intermediate towns, to Bednore, of which a *Ranny*, or Princess, was then a sovereign; whence he went on to Seringapatam, then in possession of its Hindu Princes, whom he names NUND RAUJE and DEO RAUJE; leaving which, he descended through the Tamerchery Pass into Malabar, and arrived at Chochin; whence he crossed the Peninsula through a desert tract of country to Ramisher; after visiting which, he returned up the Coromandel coast to the temple of *Jaggernaut* in Orissa, specifying all the towns on this part of his route, which are too well known to require to be here enumerated.

IV. From Jaggernaut our traveller returned by nearly the same route to Ramisher, whence he passed over into *Silan*, or Ceylon, and proceeded to its capital, which some, he observes, call *Khundi*, (Candi,) and others *Noora*; but that KHUNDI MAHA RAUJE is the Prince's designation; and that further on he arrived at Catlgang, on a river called the Manic Gunga, where there is a temple of CARTICA, or CARTICEYA, the son of MAHADEO, to which he paid his respects, and then went on to visit the *Sreepud*, or, "The Divine Foot," situated upon a mountain of extraordinary height; and on one part of which there is also (according to this Fakeer's description) an extensive miry cavity, called the *Bhoput Tank*, and which bears also the name of the Tank of RAVAN, or RABAN, (the *b* and *v* being pronounced indifferently in various parts of India,) one of the former Kings of this Island, well known in the Hindu legends for his wars with RAMA, and from whom this *Tapu*, or Island, may probably have received its ancient appellation of *Tajrobane*, (i. e. the Isle of RABAN.) But, however this may be, our traveller states,

states, that leaving this tank, he proceeded on to a station called *Seeta Koond*, (where RAMA placed his wife SEETA on the occasion of his war with her ravisher RAVAN,) and then reached at length to the *Sreepud*, on a most extensive table or flat, where there is (he observes) a *bungalow* built over the print of the divine foot; after worshipping which, he returned by the same route.

V. From Ceylon this *Sunyaſſa* passed over among the Malays, whom he describes as being *Muſſulmans*; but there was one capital Hindu merchant, a native of Ceylon, settled there, at whose house he lodged for two months, and who then procured him a passage to Cochin, on the coast of Malabar, up to which he proceeded by land; particularizing, with a wonderful tenacity of memory, the several towns and places through which he passed, with their intermediate distances: but as these are already well enough described in our own books of geography, his account of them need not be here inserted.

VI. In this direction he proceeded along the coast to Bombay, and passed on to Dwarac Tatta Hingulaj, or Henglaz, and through Multan, beyond the Attock, whence he changed his route to the eastward, and arrived at Hurdewar, where the *Ganges* enters the plains of Hindustan; and from that place of *Hindu* devotion he again departed in a westerly direction, through the upper parts of the Punjab to Cabul, and thence to Bamian, where he mentions with admiration the number of statues that still exist, though the place itself has been long deserted by its inhabitants.

VII. In the course of his rambles in this quarter of the country, he fell in with the army of AHMED SHAH ABDALLI, in the close vicinity of Ghizni; and that King, having an ulcer in his nose, consulted our Fakeer, to know if, being an Indian, he could prescribe a remedy for it: on which occasion the latter acknowledged that, having no knowledge of surgery or medicine, he had recourse to his wits, by insinuating to the Prince, that there most probably did subsist a connexion between the ulcer and his sovereignty, so that it might not be advisable to seek to get rid of the one, lest it should risk the loss of the other; a suggestion that met (he adds) with the approbation of the Prince and his Ministers.

VIII. PRAUN POORY afterwards travelled through *Khorasan*, by the way of Herat and Muſh hed, to Aſtrabad, on the borders of the Caspian Sea, and to the Maha or Buree (i. e. larger) Jowalla Mookhi, or Juâla Mûchi, terms that mean a "Flaming Mouth," as being a spot in the neighbourhood of Bakee, on the west side of the sea in question, whence fire issues; a circumstance that has rendered it
of

of great veneration with the Hindus; and PRAUN POORY adds, that locally it is called *Daghestan*, a word which I understand to mean in *Sanſcrit*, “The Region of Heat;” though the cauſe is candidly aſcribed by our traveller to the natural circumſtance of the ground being impregnated with *naphtha* throughout all that neighbourhood.

IX. After ſojourning eleven months at this Jowalla Mookhi, he embarked on the Caſpian, and obtained a paſſage to Aſtrachan; where he mentions to have been courteouſly received by the body of Hindus reſiding in that place.

X. PRAUN POORY next proceeds to notice, that a river (meaning, no doubt, the Volga) flows under Aſtrachan, and is, he ſays, frozen over, ſo as to admit of paſſengers travelling on it during four months in the year; and thence, he mentions, in eighteen days journey, he proceeded to Moſcow, the ancient capital of Ruſſia, (the Sovereign of which was, he obſerves, a *Beeby*, or Lady,) and that he halted there during five days in the Armenian *Seray*; and he takes notice that there is an impenſe bell in this city, under which a hundred perſons may find room to ſtand; adding, that he has heard, in a month’s journeying beyond Moſcow, a traveller may reach Peterſburgh, and thence get to Great Britain.

XI. But PRAUN POORY proceeded no farther than Moſcow, from which place he returned by Aſtrachan, and paſſed through Perſia, by the route of Shamaki, Sherwaun, Tubrez, Hamadan, and Iſpahan; in which capital he ſojourned during forty days, and then paſſed on to Shirauz; where he arrived during the government of KERIM SHAH, whom he deſcribes as being then about forty years of age, as far as he could judge from an audience he had of him; and there were, he adds, two Engliſh gentlemen (one of whom he calls Mr. LISTER) at this King’s court at the period of his viſiting it.

XII. Embarking at Aboofheher, on the ſouthern coaſt of Perſia, he reached the Iſle of *Kharek*, then governed by a chief called MEER MANNA, who had, he obſerves, taken it from the *Dutch*, and whom he repreſents as a chieftain living by carrying on a warfare againſt all his neighbours; and he mentions ſeveral Hindus as being ſettled here. He next arrived at the iſlands called *Babrein*, on the coaſts of which pearls are, he ſays, found; whence re-embarking for *Buſſorah*, the veſſel he was in was met and examined, and again releaſed, by the *Bombay* and *Tartar* grabs, then carrying on hoſtilities (as he underſtood) againſt SOLYMAN, the Mahommedan chief of the Bahrein Iſles. After this occurrence our traveller arrived at *Buſſorah*, a well known town and ſea-port, in which he found a number

of Hindu houses of trade, as well as two idols or figures of VISHNU, known under his appellations of GOVINDA RAYA and CALYANA RAYA ; or, according to the vulgar enunciation, and PRAUN POORY's pronounciation of their names, KULYAN Row and GOBIND Row.

XIII. After an ineffectual attempt to penetrate up the Tigris to Baghdad, he returned to Bufforah, whence descending the Persian Gulph, he arrived at Muscat, where he met also a number of *Hindus* ; and from that place he reached Surat. From hence he again proceeded by sea to Mokha, where also he found a number of Hindus ; and he thence returned into India, landing on its west coast, in the port of Sanyanpoor, situated, I suppose, towards or in the Cutch or Sinde countries.

XIV. From this port he journeyed to Balkh (where he also mentions Hindus being settled) and to Bokhara, at which he notices having viewed the famous *Derjab* of KHAJA CHESTEE, and the loftiest minar or spire he has ever seen. From this place, after twelve days journey, he arrived at Samarkand, which he describes as a large city, having a broad river flowing under it : and thence our traveller arrived, after a ten-days journey, at Budukhsan, in the hills around which rubies are, he says, found ; whence he travelled into Cashmir ; and from that passing over the hills towards Hindustan, he came to the Gungowtri, or "Descent of the Ganges," where there is, he observes, a statue of BAGHIRATHA ; at which place the river may, he says, be leaped over : and he further notices, that thirty cofs to the southward of Gungowtri there is a fountain, or spring, called the *Jumnowtri* or *Yumnowtri*, which he describes as the source of the Jumna or Yamuna River.

XV. Our traveller, leaving this part of the country, came in a south-east direction into Oude, and went thence into Nepaul, the several towns in which he describes, inclusive of its capital, Catmandee, where flow, he observes, the four rivers of Naugmutty, Bishenmutty, Roodrmutty, and Munmutty ; and at seven days journey beyond which, he notices a station called *Gossayn-thaun*, where MAHADEO took poison and slept, as related in the Hindu books ; from which place (described by him as a snowy tract) he returned to Catmandee, and went thence in another direction into Thibet, crossing in his way to it the Cofa river by a bridge composed of iron chains ; and observing that at Lestee the third day's journey beyond the Cofa, is the boundary of Nepaul and Thibet, where guards are stationed on both sides ; whence, in another day's travelling, PRAUN POORY arrived at Khassa, a town within *Bhote* or *Thibet* ; (for by the former name the natives often understand what we mean

by the latter ;) hence he proceeded to *Ghebang*, and from that to *Koortee*, where passes are given; and then crossed over the hills (called in that country *Lungoor*) into the plain of *Tingri*, beyond which one day's journey is *Gunguir*; and at the end of the next *sangee*, (from *sangu*,) which means, he says, a *bridge* over a river there: after which our traveller proceeds to notice the other distances and stations of each *munzel*, or day's journey, (with other particulars, the insertion of all which would render this address too prolix,) till he reached *Lahassá*, and the mountain of *Patala*, the seat of the DELAI LAMA, whence he proceeded to *Degurcha*, which he mentions as that of the TAISHOO LAMA; and then, in a journey of upwards of eighty days, reached to the lake of *Maun Surwur*, (called in the Hindu books *Má-nasaróvara*;) and his description of it I shall here insert in a literal translation of his own words.

XVI. "Its circumference (i. e. of the lake of *Maun Surwur*) is of six days journey, and around it are twenty or five-and-twenty *Goumaris*, or religious stations or temples, and the habitations of the people called *Dowki*, whose dress is like that of the Thibetians. The *Maun Surwur* is one lake; but in the middle of it there arises, as it were, a partition wall; and the northern part is called *Maun Surwur*, and the southern *Lunkadh*, or *Lunkdeb*. From the *Maun Surwur* part issues one river, and from the *Lunkadh* part two rivers: The first is called *Bráhma*, where *PURESAM* making *Tupisya*, the *Bráhma*putra issued out, and took its course to the eastward; and of the two streams that issue from the *Lunkadh*, one is called the *Surju*, being the same which flows by *Ayóddyá*, or *Oude*; and the other is called *Sutroodra*, (or, in the *Puránas*, *Sbutudru*, and vulgarly the *Sutluje*,) which flows into the *Punjaub* country; and two days journey west from the *Maun Surwur* is the large town of *Teree Ládac*, the former *Rajahs* of which were *Hindus*, but have now become *Mahommedans*. The inhabitants there are like unto the Thibetians. Proceeding from *Ládac*, seven days journey to the southward, there is a mountain called *Cailasa Cungri*, (*Cungur* meaning a *peak*,) which is exceedingly lofty; and on its summit there is a *Bhowjptur* or *Bhoorjptur* tree, from the root of which sprouts or gushes a small stream, which the people say is the source of the *Ganges*, and that it comes from *Vaicant'-ba*, or heaven, as is also related in the *Puránas*; although this source appears to the sight to flow from the spot where grows this *Bhowjptur* tree, which is at an ascent of some miles; and yet above this there is a still loftier summit, whither no one goes; but I have heard that on that uppermost

"pinnacle

“pinnacle there is a fountain or cavity, to which a *Jagui* somehow penetrated;
 “who, having immersed his little finger in it, it became petrified. At four days
 “journey from Cailasa Cungri is a mountain called *Bráhmada*, or BRA’HMA’s
 “staff, in which is the source of the *Aliknundra* Ganga; and five or six days
 “journey to the south of that are situated on the mountains the temples dedicated
 “to CEDARA, or KEDARNAUTH and BUDRANAUTH; and from these hills flow
 “the streams called the *Kedar Ganga* and *Sheo Ganga*; the confluxes of which, as
 “well as of the *Aliknundra*, with the main stream of the Ganges, take place near
 “Kernpraug and Deopraug, in the vicinity of Serinagur; whence they flow on in
 “a united stream, which issues into the plains of Hindustan at the Hurdewar.”

XVII. PRAUN POORY went back from this part of the country into Nepaul and Thibet, from the capital of which he was charged by the administration there with dispatches to the Governor General, Mr. HASTINGS, which he mentions to have delivered in the presence of Mr. BARWELL, and of the late Messrs. BOGLE and ELLIOTT; after which our traveller was sent to Benares with introductory letters to Rajah CHEYT SING and to Mr. GRAHAM, who was at that time the resident; and some years afterwards Mr. HASTINGS bestowed on him in *jaghire*, the village of *Assapoor*, which he continues to hold as a free tenure; though he is still so fond of travelling, that he annually makes short excursions into different parts of India, and occasionally as far as Nepaul.

XVIII. The name of the other Hindu Fakeer, or *Bráhmechary*, (whose picture reclining, in his ordinary position, on his bed of iron spikes, accompanies this,) is PERKASANUND; and he assumes the title or epithet of PURRUM SOATUNTRE, which implies *self-possession* or *independence*; and as his own relation of this mode of life is not very long, I deliver an English translation of it, as received from him in August, 1792; only observing that the *Jowalla Mookbi*, which he mentions to have visited, is not the one on the *Caspian*, but another; for there are at the least three famous places known to the Hindus under this general denomination; one near to Naugercote, another (whither PRAUN POORY went) in the vicinity of Bakee, and the third (as I have been informed by Lieut. WILFORD) at Corcoor, to the eastward of the *Tigris*; but whether it be the first or last of these *Jowalla Mookbis* that PERKASANUND visited, his narrative is not sufficiently clear to enable me to distinguish; neither are his general knowledge and intelligence at all equal to PRAUN POORY’s, which may account for his observation as to the difficulty of reaching the Maun Surwur lake, whither not only PRAUN POORY, but other Fakeers,

keers, that I have seen at Benares, profess to have nevertheless penetrated; so that my present notice of PERKASANUND to the Society, is principally on account of the strange penance he has thought fit to devote himself to, in fixing himself on his *ser-seja*, or bed of spikes, where he constantly day and night remains; and, to add to what he considers as the merit of this state of mortification, in the hot weather he has often burning around him logs of wood; and in the cold season, water falling on his head from a perforated pot, placed in a frame at some height above him; and yet he seems contented, and to enjoy good health and spirits. Neither do the spikes appear to be in any material degree distressing to him, although he uses not the defence of even ordinary cloathing to cover his body as a protection against them: but as the drawing exhibits an exact likeness as well of his person as of this bed of seeming torture, I shall not here trouble the Society with any further description of either, and conclude by mentioning, that he is now living at Benares, on a small provision that he enjoys from government.

P. S. Had my official occupations, whilst at Benares, admitted of my paying due attention to PRAUN POORY's narrative of his travels, the geographical information they contain, or rather point to, as to the source of the Ganges, Jumna, and other principal rivers, might have probably admitted of a fuller illustration, and greater degree of accuracy, from a farther examination of that *Sunyassy*, aided by the important assistance which I might in that case have obtained on this part of the subject from Lieutenant WILFORD, who has, through his own unwearied exertions, and chiefly at his own expence, collected a variety of valuable materials relative to the geography of the north of India; at the same time that, by a zealous application to the study of Hindu literature, joined to an intimate acquaintance with whatever the Greeks and Romans have left us, on their mythology, or concerning the general events of former ages, as far as their knowledge of the world extended, this gentleman is likely to throw much light on the earlier periods of the history of mankind.

Translation of the Relation delivered by PURRUM SOATUNTRE PURKASANUND BREHMCHARY of his Travels and Life; delivered on the 14th of August, 1792.

I AM a *Bráhmén* of the *Rújerveda* sect, and of the line of *Prášher*. My ancestors are from the Punjaub. They had a long time ago come to visit at Jaggernauth, and had reached and were abiding at Gope gawn, where I was born. When I was only ten years of age, I used to give myself up to meditation and mortification, lying upon thorns and pebbles; a mode of life I had continued for ten years, when it was interrupted by my relations, who wanted me to think of marriage; whereupon, having attained to twenty years of age, I left my home, determined to devote myself to travelling. First, after coming out of my house, I went towards Ootrakhund, by way of *Nepaul* and *Bbote*. I went into the country of the Great and Little *Lama*, where the *TEESHOO LAMA* lives. In this tract is the *Maun Talae*, (i.e. tank or lake,) as far as which is inhabited, but not beyond it; and the lake called *Maun Surwur* is seventeen *munzels*, or days journey, farther on, in a jungly country, which prevents access to it. There are in this quarter the places known under the denominations of *Muni*, *Mabesho*, *Mabadeo*, and of *Teloke*, *Nauthjee*, and the *Debbees*, or cooking places, of *Nownauth*; and of the eighty-four *Sidhs*, or religious persons, thus distinguished; all situated on this side of the *Maun Surwur*. Into these *Debbees*, if one throw in either two loaves, or as many as are wanted; one in the name of the *Sidh*, and another in one's own name; that in the name of the *Sidh* remains at the bottom, and that in one's own name rises up baked. These places I visited. At the *Maun Talae* the boundaries of four countries meet, viz. that of China, of the *Lama's* country, of the *Befeher* country, and that of the *Cooloo* country.

Proceeding thus in religious progress from hill to hill, I passed through the *Shaum* country, and descending the hills arrived in *Cashmir*, where I halted for devotional purposes, as well as to prosecute my studies. From *Cashmir* I went through *Thibet* to the Great *Jowallah*, which is situated in a country where fire rises out of the ground for the space of twelve coss. In this *Jowallah* whoever wants to dress victuals, or boil water, they have only to dig a little fissure into the surface of the ground, and place the article thereon, which will serve without wood. On this side of *Peishore*, where the *Sendhe* salt is produced, there is a village called

called *Dudun Khan's Pend*, adjoining to the salt pits. The Rajah of that country was called Rajah BHENDA SINGH. I had here shut myself up in a *Gowpha*, or cell, where I vowed to remain doing penance for a period of twelve years. Vermin or worms gnawed my flesh, of which the marks still remain; and when one year had elapsed, then the Rajah opened the door of the cell, whereupon I said to him, "either take my curse, or make me a *ser-seja*, or bed of spikes;" and then that Rajah made for me the *ser-seja* I now occupy. During the four months of the winter I made *jel-seja* upon this feat. *Jel-seja* is, that night and day water is let fall upon my head. From thence, by the Sindh country I went to Hingoolauje, (a mountain dedicated to *Debee*.) All the country to the west and south I travelled over upon this *ser-seja*, coming at length to Preyago, or Allahabad; and passing by Cashi, or Benares, I went to the temple of Jaggernaut; and visiting Balajee, proceeded on to Ramisher; and, after visiting that place, I journed on to Surat. In Surat I embarked in a vessel, and went by sea to Muscat in twelve days; and thence returning, came to Surat again. Mr. BODDAM was then at Surat; and he afterwards went to Bombay. I stayed two years at Surat. Mr. BODDAM granted me something to subsist on with my followers, and built a house for me; and still my *Cheilas*, or disciples, are there. It is thirty-five years since I made *Tupisya* upon this *ser-seja*. I have been in several countries. How much shall I cause to be written? I have been at every place of religious resort, and have no longer any inclination to roam; but being desirous of settling in Benares, I have come hither. Three *Yugs* have passed, and we are now in the fourth; and in all these four ages there have been religious devotees, and their disciples; and they are first to make application to the Rajah, or to whoever is the ruler of the place; for even Rajahs maintain and serve us; and it is befitting that I obtain a small place, where I may apply to my religious duties, and that something may be allowed for my necessary expences, that I may bless you.

QUESTION. In all the eighteen *Tupisyas*, or modes of penitential devotion, that are made mention of in the *Shaster*, the one you have chosen is not specified; wherefore it is inferable, that you must have committed some great offence, in expiation of which you have betaken yourself to the present very rude mode of discipline. Declare, therefore, what crime you have perpetrated.

ANSWER. In the *Suthya Yug*, or first age, there was a *Rikb*, or holy-man, called AGNIBURNA, who performed this *ser-seja* discipline; as in the *Treta*, or second age, did RAVONO, for ten thousand years; and in the *Dwapar*, or third age, BHIKMA PITAMAHA, did the same; and in the *Calè Yug*, or present age, I have

have followed their example, during a period of thirty-five years; but not to expiate any crime or offence by me committed; in which respect if I be guilty, may VESHWEISHURA strike me a leper here in Benares.

QUESTION. When you went to Ramisher, at what distance was Lunka?

ANSWER. We go to Ramisher to worship; and at the *Setbund*, or bridge there, there is a *ling* of sand, which I paid my respects to: but beyond that nobody from Hindustan has gone to Lunka. In the sea, your ships are always failing about; but the current is such, that they cannot get thither; so, how can we go there? But from *Singuldeep*, or Ceylon, we can see the glitterings of Lunka. There I did not go; but my Cheilas have been there, who said that in *Singuldeep* is the seat of RAWON; and HUNOOMAN's twelve *Chokies*, or watch stations.

QUESTION. Have you seen RAM's Bridge? If you have seen it, describe its length and breadth, and whether it be still sound or broken.

ANSWER. *Ram's* Bridge, which is called *Setbund*, is ascertained by the *Védas* to be ten *jojun* broad, and one hundred *jojun* long; but in three places it is broken. The people call it a bridge; or otherwise it appears to have wood growing on it, and to be inhabited.

III.

ENUMERATION OF INDIAN CLASSES.

By H. T. COLEBROOKE, Esq.

THE permanent separation of Classes, with hereditary professions assigned to each, is among the most remarkable institutions of *India*; and, though now less rigidly maintained than heretofore, must still engage attention. On the subject of the mixed Classes, *Sanscrit* authorities, in some instances, disagree: Classes mentioned by one, are omitted by another; and texts differ on the professions assigned to some tribes. A comparison of several authorities, with a few observations on the subdivisions of Classes, may tend to elucidate this subject, in which there is some intricacy.

One of the authorities I shall use, is the *Játimálá*, or Garland of Classes; an
extract

extract from the *Rudrayāmala Tantra*, which, in some instances, corresponds better with usage and received opinions than the ordinances of MENU, and the great *D'herma-purāna**. On more important points its authority could not be compared with the *D'herma-śāstra*; but, on the subject of Classes, it may be admitted; for the *Tantras* form a branch of literature highly esteemed, though at present much neglected. Their fabulous origin derives them from revelations of SIVA to PA'RVATI, confirmed by VISHNU, and therefore called *Agama*, from the initials of three words in a verse of the *Tódala Tantra*.

“Coming from the mouth of SIVA, heard by the mountain-born goddess, admitted by the son of VASUDE'VA, it is thence called *Agama*.”

Thirty-six are mentioned for the number of mixed classes; but, according to some opinions, that number includes the fourth original tribe, or all the original tribes, according to other authorities; yet the text quoted from the great *D'herma-purāna*, in the digest of which a version was translated by Mr. HALHED, name thirty-nine mixed classes; and the *Játimálá* gives distinct names for a greater number.

On the four original tribes it may suffice, in this place, to quote the *Játimálá*, where the distinction of *Bráhmans*, according to the ten countries to which their ancestors belonged, is noticed: that distinction is still maintained.

“In the first creation, by BRA'HMA, *Bráhmans* proceeded, with the *Véda*, from the mouth of BRA'HMA. From his arms *Cshatriyas* sprung; so from his thigh, *Vaisyas*; from his foot *Súdras* were produced: all with their females.

“The Lord of creation viewing them, said, ‘What shall be your occupations?’ They replied, ‘We are not our own masters, oh, God! Command us what to undertake.’

“Viewing and comparing their labours, he made the first tribe superior over the rest. As the first had great inclination for the divine sciences, (*Bráhme-véda*), therefore he was *Bráhmans*. The protector from ill (*Cshate*) was *Cshatriya*; him whose profession (*Véśa*) consists in commerce, which promotes success in war, for the protection of himself and of mankind; and in husbandry, and attendance on cattle, called *Vaisya*. The other should voluntarily serve the three tribes, and therefore he became a *Súdra*: he should humble himself at their feet.”

* The texts are cited in the *Vivádárnave sētu*, from the *Vrihad D'herma-purāna*. This name I therefore retain; although I cannot learn that such a *purāna* exists; or to what treatise the quotation refers under that name.

And in another place :

“ A chief of the twice-born tribe was brought by VISHNU's eagle from *Sáca-dwipa* : thus have *Sáca dwipa Bráhma*nas become known in *Jambu dwipa*.

“ In *Jambu dwipa Bráhma*nas are reckoned tenfold ; *Sáreswata*, *Cányacubja*, *Gauda*, *Maitbila*, *Utcala*, *Drávida*, *Marabáshtrà*, *Tailanga*, *Gujjava*, and *Cásmira*, residing in the several countries whence they are named*.

“ Their sons and grand-sons are considered as *Cányacubja* priests, and so forth. “ Their posterity, descending from MENU, also inhabit the southern regions : others “ reside in *Anga Banga* and *Calinga* ; some in *Camrupa* and *Odra*. Others are “ inhabitants of *Sumbhadesa* : and twice-born men, brought by former Princes, “ have been established in *Báda Mágadha*, *Varéndra*, *Chóla*, *Suernagrâma*, *China*, “ *Cula*, *Saca*, and *Berbera* †.”

I shall proceed, without further preface, to enumerate the principal mixed classes, which have sprung from intermarriages of the original tribes.

1. *Murá'habbikicá*, from a *Bráhma*na by a girl of the *Cshatriya* class : his duty is the teaching of military exercises. The same origin is ascribed in the great *D'herma-purâna* to the *Cumbbacára* ‡, or potter, and *Tantraváya* ||, or weaver : but the *Tantraváya*, according to the *Játimálá*, sprung from two mixed classes, begotten by a man of the *Manibandha* on a woman of the *Manicára* tribe.

2. *Ambasht'ka*, or *Vaidya* §, whose profession is the science of medicine, was born of a *Vaisya* woman, by a man of the sacerdotal class. The same origin is given by the *D'herma-purâna* to the *Cansacára* ¶, or brazier, and to the *Sanc'bacára* **,

* These several countries are *Sáreswata*, probably the region watered by the river *Sersutty*, as it is marked in maps ; unless it be a part of *Bengal*, named from the branch of the *Bhágirathí*, which is distinguished by this appellation, *Cányacubjá*, or *Canoj* ; *Gaurá*, probably the western *Gár*, and not the *Gaur* of *Bengal* ; *Mit'hila*, or *Tirab-hucti*, corrupted into *Tirhut* ; *Utcala*, said to be situated near the celebrated temple of *Jagannát'ha* ; *Drávida*, pronounced *Dravira* ; possibly the country described by that name, as a maritime region south of *Carnata*, (*Asi. Res.* vol. ii.) *Marabáshtrà*, or *Marháta* ; *Telinga*, or *Telingána* ; *Gujjara*, or *Guzrat* ; *Cásmíra*, or *Cáshmir*.

† *Anga* includes *Bhágulpur*. *Benga*, or *Bengal Proper*, is a part only of the *Suba*. *Varéndra*, or tract of inundation north of the *Ganges*, is a part of the present *Zila* of *Rajesháhi*. *Calinga* is watered by the *Godáveri*, (*Asi. Res.* vol. iii.) *Camrupa*, an ancient empire, is become a province of *Asém*. *Odra* I understand to be *Orísá Proper*, *Rada* (if that be the true reading) is well known as the country west of the *Bhágirát'ha*. *Mágadha*, or *Magadha*, is *Bahar Proper* ; *Chóla*, is part of *Birbhum*. Another region of this name is mentioned in the *Asiatick Researches*, vol. iii. *Suernagrâma*, vulgarly *Sunargau*, is situated east of *Dacca*. *China* is a portion of the present Chinese empire. On the rest I can offer no conjecture. *Saca* and *Berbera*, here mentioned, must differ from the *Dwipa*, and the region situated between the *Cusha* and *Sancha Dwypas*.

‡ Vulgarly, *Cumár*.

|| Vulgarly, *Tanti*.

§ Vulgarly, *Baidya*.

¶ Vulgarly, *Cáserá*.

** Vulgarly, *Suc'héra*.

or worker in shells. These again are stated, in the *Tantra*, as springing from the intermarriages of mixed classes; the *Canśacāra* from the *Tāmracūta* and the *Sanc'bacāra*; also named *Sanchadāreca*, from the *Rājaputra* and *Gāndhika*: for *Rājaputras* not only denote *Cshatriyas* as sons of kings, but is also the name of a mixed class, and of a tribe of fabulous origin.

Rudra-Yāmala Tantra: "The origin of *Rājaputras* is from the *Vaiśya* on the daughter of an *Ambaśt'ha*. Again, thousands of others sprung from the fore-heads of cows kept to supply oblations."

3. *Niśāda*, or *Pārasava*, whose profession is catching fish, was born of a *Sūdra* woman by a man of a sacerdotal class. The name is given to the issue of a legal marriage between a *Brāhmaṇa* and a woman of the *Sūdra* class. It should seem that the issue of other legal marriages in different classes were described by the names of mixed classes springing from intercourse between the several tribes. This, however, is liable to some question; and since such marriages are considered as illegal in the present age, it is not material to pursue the inquiry.

According to the *D'herma-purāṇa*, from the same origin as the *Niśāda* springs the *Varajīvi*, or astrologer. In the *Tantra*, that origin is given to the *Brāhmaṇe-sūdra*, whose profession is to make chairs or stools used on some religious occasions. Under the name of *Varajīvi** is described a class springing from the *Gōpa* and *Tantravāya*, and employed in cultivating beetle. The profession of astrology, or, at least, that of making almanacks, is assigned, in the *Tantra*, to degraded *Brāhmaṇas*.

"*Brāhmaṇas*, falling from their tribe, become kinsmen of the twice-born class: to them is assigned the profession of ascertaining the lunar and solar days."

4. *Māhishya* is the son of a *Cshatriya* by a woman of the *Vaiśya* tribe. His profession is musick, astronomy, and attendance on cattle.

5. *Ugra* was born of a *Sūdra* woman by a man of the military class. His profession, according to *MENU*, is killing or confining such animals as live in holes: but, according to the *Tantra*, he is an encomiast or bard. The same origin is attributed to the *Nāpita*† or barber; and to the *Maudaca*, or confectioner. In the *Tantra*, the *Nāpita* is said to be born of a *Cuverina* woman by a man of the *Patticāra* class.

* Vulgarly, *Baraiya*.

† Vulgarly, *Nāya*, or *Nai*.

6. *Carana* * from a *Vaisya*, by a woman of the *Súdra* class, is an attendant on princes, or secretary. The appellation of *Cáyast'ha* † is in general considered as synonymous with *Carana*; and accordingly the *Carana* tribe commonly assumes the name of *Cáyast'ha*: but the *Cáyast'has* of Bengal have pretensions to be considered as true *Súdras*, which the *Játimálá* seems to authorize; for the origin of the *Cáyast'ha* is there mentioned, before the subject of mixed tribes is introduced, immediately after describing the *Gópa* as a true *Súdra*.

One, named *Bhútidatta*, was noticed for his domestic assiduity ‡; therefore the rank of *Cáyast'ha* was by *Bráhmanas* assigned to him. From him sprung three sons, *Chitrángada*, *Chitraśēna*, and *Chitrágupta*: they were employed in attendance on princes.

The *D'herma-purána* assigns the same origin to the *Tambulí*, or beetle-seller, and to the *Tanlica*, or areca-seller, as to the *Carana*.

The six above enumerated are begotten in the direct order of the classes. Six are begotten in the inverse order.

7. *Suta*, begotten by a *Cshatriya*, on a woman of the priestly class. His occupation is managing horses, and driving cars. The same origin is given, in the *Purána*, to the *Málácára* || or florist; but he sprung from the *Carmacára* and *Tailica* classes, if the authority of the *Tantra* prevails.

8. *Mágadha*, born of a *Cshatriya* girl, by a man of the commercial class, has, according to the *Sástra*, the profession of travelling with merchandize; but, according to the *Purána* and *Tantra*, is an encomiast. From parents of those classes sprung the *Gópa* § if the *Purána* may be believed; but the *Tantra* describes the *Gópa* as a true *Súdra*, and names *Gópajivi* ¶ a mixed class, using the same profession, and springing from *Tantraváya* *Manibandha* classes.

9 and 10. *Vaideha* and *Ayógava*. The occupation of the first, born of a *Bráhmanē* by a man of the commercial class, is waiting on women: the second, born of a *Vaisya* woman by a man of the servile class, has the profession of a carpenter.

11. *Cshattri*, or *Cshatta*, sprung from a servile man by a woman of the military class, is employed in killing and confining such animals as live in holes. The same origin is ascribed by the *Purána* to the *Carmacára*, or smith, and *Dáśa*, or mariner.

* Vulgarly, *Caran*.

† Vulgarly, *Cáit*.

‡ Literally, *Staying at home*, (*Cáey sansthitah*,) whence the etymology of *Cáyast'ha*.

|| *Málí*.

§ *Góp*.

¶ *Góariá-Góp*.

The one is mentioned in the *Tantra* without specifying the classes from which he sprung; and the other has a different origin, according to the *Sástra* and *Tantra*.

All authorities concur in deriving the *Chándala* from a *Súdra* father and *Bráhmén* mother. His profession is carrying out corpses, and executing criminals; and officiating in other abject employments for public service.

A third set of Indian classes originate from the intermarriages of the first and second set: a few only have been named by MENU; and, excepting the *Abhira*, or milkman, they are not noticed by the other authorities to which I refer. But the *Purána* names other classes of this set.

A fourth set is derived from intercourse between the several classes of the second set: of these also few have been named by MENU; and one only of the fifth set, springing from intermarriages of the second and third set; and another of the sixth set, derived from intercourse between classes of the second and fourth set. MENU adds to these classes four sons of outcasts.

The *Tantra* enumerates many other classes, which must be placed in lower sets*, and ascribes a different origin to some of the classes in the third and fourth sets.

These differences may be readily apprehended from the comparative table annexed. To pursue a verbose comparison would be tedious, and of little use; perhaps, of none; for I suspect that their origin is fanciful; and, except the mixed classes named by MENU, that the rest are terms for professions rather than classes; and they should be considered as denoting companies of artisans, rather than distinct races. The mode in which AMERA SINHA mentions the mixed classes, and the professions of artisans, seems to support this conjecture.

However, the *Játimálá* expressly states the number of forty-two mixed classes, springing from the intercourse of a man of inferior class with a woman of superior class. Though, like other mixed classes, they are included under the general denomination of *Súdra*, they are considered as most abject, and most of them now experience the same contemptuous treatment as the abject mixed classes mentioned by MENU. According to the *Rudrayámala*, the domestic priests of twenty of these classes are degraded. "Avoid," says the *Tantra*, "the touch of the *Chándala*, and "other abject classes; and of those who eat the flesh of kine, often utter forbidden

* See the annexed rule formed by our late venerable President.

" words,

“ words, and perform none of the prescribed ceremonies ; they are called *Moléccha*, and going to the region of *Yavana*, have been named *Yavanas*.

“ These seven, the *Rajaca*, *Chermacára*, *Nat'a*, *Barud'a*, *Caiverta*, and *Médab-billa*, are the last tribes. Whoever associates with them, undoubtedly falls from his class ; whoever bathes or drinks in wells or pools which they have caused to be made, must be purified by the five productions of kine ; whoever approaches their women, is doubtless degraded from his class.”

“ For women of the *Nat'a* and *Capála* classes, for prostitutes, and for women of the *Rajaca* and *Nápita* tribes, a man should willingly make oblations, but by no means dally with them.”

I may here remark, that, according to the *Rudrayámala*, the *Nat'a* and *Natáca* are distinct ; but the professions are not discriminated in that *Tantra*. If their distinct occupations, as dancers and actors, are accurately supplied, dramas are of very early date.

The *Pundraca* and *Pattasutracára*, or feeder of silk-worms, and silk-twister, deserve notice ; for it has been said, that silk was the produce of *China* solely until the reign of the Greek Emperor JUSTINIAN, and that the laws of *China* jealously guarded the exclusive production. The frequent mention of silk in the most ancient *Sanserit* books would not fully disprove that opinion ; but the mention of an Indian class, whose occupation it is to attend silk-worms, may be admitted as proof, if the antiquity of the *Tantra* be not questioned. I am informed, that the *Tantras* collectively are noticed in very ancient compositions ; but as they are very numerous, they must have been composed at different periods ; and the *Tantra* which I quote, might be thought comparatively modern. However, it may be presumed that the *Rudra-yámala* is among the most authentic, and, by a natural inference, among the most ancient ; since it is named in the *Durgameháta*, where the principal *Tantras* are enumerated*.

In the comparative Tables to which I have referred, the classes are named, with their origin, and the particular professions assigned to them. How far every person is bound, by original institutions, to adhere rigidly to the profession of his class,

* Thus enumerated, *Cali-Tantri*, *Mámdalá*, *Tárá*, *Nirbána-Tantra*, *Servar sárun*, *Bira-Tantra*, *Singár-chana*, *Bhúta-Tantra*, *Uddisán* and *Cálicácalpa*, *Bhairaví-Tantra*, and *Bhairavícalpa*, *Tódala*, *Mátribehédancha*, *Máya-Tantra*, *Biréswara*, *Biswes-ára*, *Samayá-Tantra*, *Bráhma-Yámala-Tantra*, *Rudra-Yámala-Tantra*, *Sanctryámala-Tantra*, *Gáyatri-Tantra*, *Cálicácula* *Servasíva*, *Culármaca*, *Yóg ni-Tantra*, and the *Tantra Mehishamarddini*. These are here universally known, Oh, BHAIRAVI, greatest of souls ! And many are the *Tantras* uttered by SAMBHU.

may merit some enquiry. Lawyers have largely discussed the texts of law concerning this subject, and some difference of opinion occurs in their writings. This, however, is not the place for entering into such disquisitions. I shall therefore briefly state what appears to be the best established opinion, as deduced from the texts of *MENU*, and other legal authorities.

The regular means of subsistence for a *Bráhmāna*, are assisting to sacrifice, teaching the *Védas*, and receiving gifts; for a *Cshatriya*, bearing arms; for a *Vaisya*, merchandize, attending on cattle, and agriculture; for a *Súdra*, servile attendance on the higher classes. The most commendable are, respectively for the four classes, teaching the *Véda*, defending the people, commerce, or keeping herds or flocks, and servile attendance on the learned and virtuous priests.

A *Bráhmāna*, unable to subsist by his duties, may live by the duty of a soldier: if he cannot get a subsistence by either of these employments, he may apply to tillage, and attendance on cattle, or gain a competence by traffick, avoiding certain commodities. A *Cshatriya*, in distress, may subsist by all these means; but he must not have recourse to the highest functions. In seasons of distress, a further latitude is given. The practice of medicine, and other learned professions, painting and other arts, work for wages, menial service, alms and usury, are among the modes of subsistence allowed to the *Bráhmāna* and *Cshatriya*. A *Vaisya*, unable to subsist by his own duties, may descend to the servile acts of a *Súdra*. And a *Súdra*, not finding employment by waiting on men of the higher classes, may subsist by handicrafts; principally following those mechanical occupations, as joinery and masonry; and practical arts, as painting and writing; by following of which he may serve men of superior classes: and, although a man of a lower class is in general restricted from the acts of a higher class, the *Súdra* is expressly permitted to become a trader or a husbandman.

Besides the particular occupations assigned to each of the mixed classes, they have the alternative of following that profession which regularly belongs to the class from which they derive their origin on the mother's side: those, at least, have such an option, who are born in the direct order of the classes, as the *Múrdhábhishta*, *Ambast'ha*, and others. The mixed classes are also permitted to subsist by any of the duties of a *Súdra*; that is, by menial service, by handicrafts, by commerce, or by agriculture.

Hence it appears that almost every occupation, though regularly it be the profession of a particular class, is open to most other classes; and that the limitations,

far

far from being rigorous, do, in fact, reserve only one peculiar profession, that of the *Bráhmāna*, which consists in teaching the *Véda*, and officiating at religious ceremonies.

The classes are sufficiently numerous; but the subdivisions of classes have further multiplied distinctions to an endless variety. The subordinate distinctions may be best exemplified from the *Bráhmāna* and *Cáyast'ha*, because some of the appellations, by which the different races are distinguished, will be familiar to many readers.

The *Bráhmānas* of Bengal are descended from five priests, invited from *Cányacubja*, by A'DISURA, King of *Gaura*, who is said to have reigned about three hundred years before Christ. These were, *Bhat't'a Neráyna*, of the family of *San'dila*, a son of *Cas'yapa*; *Dacsha*, also a descendant of *Cas'yapa*; *Védagarva*, of the family of *Vatsa*; *Chandra*, of the family of *Saverna*, a son of *Cas'yapa*; and *Srī Her'shu*, a descendant of *Bhavadvāja*.

From these ancestors have branched no fewer than a hundred and fifty-six families, of which the precedence was fixed by BALLA'LA SE'NA, who reigned in the twelfth century of the Christian æra. One hundred of these families settled in *Varéndra*, and fifty-six in *Rara*. They are now dispersed throughout Bengal, but retain the family distinctions fixed by BALLA'LA SE'NA. They are denominated from the families to which their five progenitors belonged, and are still considered as *Cányacubja Bráhmānas*.

At the period when these priests were invited by the king of *Gaura*, some *Sáreswata Bráhmānas*, and a few *Vaidicas*, resided in Bengal. Of the *Bráhmānas* of *Sáreswata* none are now found in Bengal; but five families of *Vaidicas* are extant, and are admitted to intermarry with the *Bráhmānas* of *Rára*.

Among the *Bráhmānas* of *Varéndra*, eight families have pre-eminence, and eight hold the second rank.* Among those of *Rára*, six hold the first

* VA'RI'NDRA BRA'HMANAS.

CUL'NA 8.

Moitra,

Bhima,

Rudra-Vágísi.

Sanyamini,

or

or

Cáli.

Sandyal.

Láhar.

Bhaduri.

Sadhu-Vágísi.

Bhadara.

The last was admitted by the election of the other seven.

SUDHA SRO'TRI' 8.

CASHTA SRO'TRI' 84.

The names of these families seldom occur in common intercourse,

rank.

rank.* The distinctive appellations of the several families are borne by those of the first rank; but in most of the other families they are disused; and *Serman*, or *Sermà*, the addition common to the whole tribe of *Brábhmanas*, is assumed. For this practice, the priests of Bengal are censured by the *Brábhmanas* of *Mit'hilá*, and other countries, where that title is only used on important occasions, and in religious ceremonies.

In *Mit'hilá* the additions are fewer, though distinct families are more numerous: no more than three surnames are in use in that district, *T'hácura*, *Misra*, and *Ojbá*; each appropriated in any families.

The *Cáyast'has* of Bengal claim descent from five *Cáyast'has* who attended the priests invited from *Canyacubja*. Their descendants branched into eighty-three families, and their precedence was fixed by the same prince BALLA'LA SE'NA, who also adjusted the family rank of other classes.

In *Benga* and *Decshina Rará* three families of *Cáyast'has* have pre-eminence; eight hold the second rank. † The *Cáyast'has* of inferior rank generally assume the addition of *Dáfa*, common to the tribe of *Súdras*, in the same manner as other

* RA'RI'YA BRA'HMANAS.

CUL'NA 6.

<i>Muchuti</i> ,	<i>Ganguli</i> .	<i>Cánjelala</i> .
Vulgarly <i>Muc'kerjā</i>		
<i>Ghóhala</i> .	<i>Bandyagati</i> ,	<i>Chat'ati</i> .
	Vulgarly, <i>Bangji</i> .	Vulgarly, <i>Chatojí</i> .

SRO'TRI' 50.

The names of these families seldom occur in common intercourse.

† CA'YAST'HAS OF DECSHINA RA'RA' and BENGAL.

CUL'NA 3.

<i>Ghósha</i> .	<i>Vasú</i> ,	<i>Mitra</i> .
	Vulg. <i>Bo'sé</i> .	

SANMAULICA 8.

<i>Dé</i> .	<i>Datta</i> .	<i>Cara</i> .	<i>Palita</i> .
<i>Séna</i> .	<i>Sinha</i> .	<i>Dáfa</i> .	<i>Guha</i> .

MAULICA 72.

<i>Guhan</i> .	<i>Gana</i> .	<i>Heda</i> .	<i>Hukin</i> .	<i>Naga</i> .	<i>Bhadre</i> .
<i>Sóma</i> .	<i>Pui</i> .	<i>Rudra</i> .	<i>Pála</i> .	<i>Aditya</i> .	<i>Chandra</i> .
<i>Sányá</i> , or <i>Sain</i> .			<i>Suin</i> , &c.		
<i>Syáma</i> , &c.					
<i>Téja</i> , &c.					
<i>Cháci</i> , &c.					

The others are omitted for the sake of brevity; their names seldom occur in common intercourse.

classes have similar titles common to the whole tribe. The regular addition to the name of *Cshatriya* is *Verman*; to that of a *Vaisya*, *Gupta*; but the general title of *Déva* is commonly assumed; and, with a feminine termination, is also borne by women of other tribes.

The distinctions of families are important in regulating intermarriages. Genealogy is made a particular study; and the greatest attention is given to regulate the marriages according to established rules, particularly in the first marriage of the eldest son. The principal points to be observed are, not to marry within the prohibited degrees; nor in a family known by its name to be of the same primitive stock; nor in a family of inferior rank; nor even in an inferior branch of an equal family; for within some families gradations are established. Thus, among the *Culina* of the *Cáyast'has*, the rank has been counted from thirteen degrees; and in every generation, so long as the marriage has been properly assorted, one degree has been added to the rank. But should a marriage be contracted in a family of a lower degree, an entire forfeiture of such rank would be incurred.

The subject is intricate; but any person, desirous of acquiring information upon it, may refer to the writings of *Gat'tacas*, or genealogists, whose compositions are in the provincial dialect, and are known by the name of *Culaji*.

IV.

SOME ACCOUNT OF THE SCULPTURES AT MAHABALIPOORUM; USUALLY CALLED THE SEVEN PAGODAS.

By J. GOLDINGHAM, Esq.

THESE curious remains of antiquity, situate near the sea, are about thirty-eight English miles southerly from *Madras*. A distant view presents merely a rock, which, on a near approach, is found deserving of particular examination. The attention passing over the smaller objects, is first arrested by a *Hindu* pagoda, covered with sculpture, and hewn from a single mass of rock; being about twenty-six feet in height, nearly as long, and about half as broad. Within is the *lingam*, and a long inscription on the wall, in characters unknown.

Near

Near this structure, the surface of the rock, about ninety feet in extent, and thirty in height, is covered with figures in bas-relief. A gigantic figure of the god CRISHNA is the most conspicuous, with ARJOON, his favourite, in the *Hindu* attitude of prayer; but so void of flesh, as to present more the appearance of a skeleton than the representation of a living person. Below is a venerable figure, said to be the father of ARJOON; both figures proving the sculptor possessed no inconsiderable skill. Here are the representations of several animals, and of one which the *Bráhmens* name *singam*, or lion; but by no means a likeness of that animal, wanting the peculiar characteristick, the mane. Something intended to represent this is, indeed, visible, which has more the effect of spots. It appears evident, the sculptor was by no means so well acquainted with the figure of the lion as with that of the elephant and monkey, both being well represented in this group. This scene, I understand, is taken from the *Mahabarat*, and exhibits the principal persons whose actions are celebrated in that work.

Opposite, and surrounded by, a wall of stone, are pagodas of brick, said to be of great antiquity. Adjoining is an excavation in the rock, the massy roof seemingly supported by columns, not unlike those in the celebrated cavern in the Island of *Elephanta*, but have been left unfinished. This was probably intended as a place of worship. A few paces onward is another, and a more spacious, excavation, now used, and I suppose originally intended, as a shelter for travellers. A scene of sculpture fronts the entrance, said to represent CRISHNA attending the herds of ANANDA. One of the group represents a man diverting an infant, by playing on a flute, and holding the instrument as we do. A gigantic figure of the god, with the *gopis*, and several good representations of nature, are observed. The columns supporting the roof are of different orders, the base of one is the figure of a *Sphynx*. On the pavement is an inscription. (See Inscript.) Near is the almost deserted village, which still retains the ancient name *Mahabalipoorum*. The few remaining *Bráhmens* visit the travellers, and conduct him over the rock.

In the way up the rock a prodigious circular stone is passed under, so placed by nature, on a smooth and sloping surface, that you are in dread of its crushing you before you clear it. The diameter of this stone is twenty-seven feet. The top of the rock is strewn with fragments of bricks, the remains, as you are informed, of a palace anciently standing on this site. A rectangular polished slab, about ten feet in length, the figure of a *singam* couchant, at the south end, is shewn you as the couch of the DHERMA Rajah. A short way further, the bath used by the females

of

of the palace is pointed out. A tale I suspect fabricated by the *Bráhmens* to amuse the traveller. That some of their own cast had chosen this spot, retired among rocks difficult of access to reside in, and that the bath, as it is called, which is only a rough stone hollowed, was their reservoir for water, would have an air of probability. The couch seems to have been cut from a stone accidentally placed in its present situation, and never to have made a part of the internal furniture of a building. The *singam*, if intended as a lion, is equally imperfect with the figures of the same animal before-mentioned.

Descending over immense beds of stone, you arrive at a spacious excavation; a temple dedicated to *SÍVA*, who is represented, in the middle compartment, of a large stature, and with four arms; the left foot rests on a bull couchant; a small figure of *BRA'HMA* on the right hand; another of *VISHNU* on the left; where also the figure of his goddess *PARVATI'* is observed. At one end of the temple is a gigantic figure of *VISHNU*, sleeping on an enormous *Cobra de Capella*, with several heads, and so disposed as to form a canopy over the head of the god. At the opposite end is the goddess *SÍVA*, with eight arms, mounted on a *singam*. Opposed to her is a gigantic figure, with a buffalo's head and human body. Between these is a human figure, suspended with the head downwards. The goddess is represented with several warlike weapons, and some armed dwarf attendants; while the monster is armed with a club. In the character of *DURGA*, or protector of the virtuous, the goddess is rescuing from the *YEM Rajah* (the figure with the buffalo's head) the suspended figure fallen improperly into his hands. The figure and action of the goddess are executed in a masterly and spirited style. Over this temple, at a considerable elevation, is a smaller, wrought from a single mass of stone. Here is seen a slab similar to the *DHERMA Rajah's* couch. Adjoining is a temple in the rough, and a large mass of rock, the upper part roughly fashioned for a pagoda. If a conclusion may be drawn from these unfinished works, an uncommon and astonishing perseverance was exerted in finishing the structures here; and the more so, from the stone being a species of granite, and extremely hard.

The village contains but few houses, mostly inhabited by *Bráhmens*; the number of whom has, however, decreased of late, owing to a want of the means of subsisting. The remains of several stone edifices are seen here; and a large tank, lined, with steps of stone. A canopy for the pagod attracts the attention, as by no means wanting in magnificence or elegance. It is supported by four columns, with base and capital, about twenty-seven feet in height, the shaft tapering regularly upwards;

upwards; is composed of a single stone, though not round, but sixteen sided; measuring at bottom about five and a half feet.

East of the village, and washed by the sea, which, perhaps, would have entirely demolished it before now, but for a defence of large stones in front, is a pagoda of stone, and containing the *lingam*, was dedicated to ŚIVA. Besides the usual figures within, one of a gigantic stature is observed stretched out on the ground, and represented as secured in that position. This the *Brāhmens* tell you was designed for a Rajah who was thus secured by VISHNU; probably alluding to a prince of the VISHNU cast having conquered the country, and taken its prince. The surf here breaks far out over, as the *Brāhmens* inform you, the ruins of the city, which was incredibly large and magnificent. Many of the masses of stone near the shore appear to have been wrought. A *Brāhmen*, about fifty years of age, a native of the place, whom I have had an opportunity of conversing with since my arrival at Madras, informed me, his grandfather had frequently mentioned having seen the gilt tops of five pagodas in the surf, no longer visible. In the account of this place by Mr. WILLIAM CHAMBERS, in the first volume of the *Asiatick Researches*, we find mention of a brick pagoda, dedicated to ŚIVA, and washed by the sea; this is no longer visible; but as the *Brāhmens* have no recollection of such a structure, and as Mr. CHAMBERS wrote from memory, I am inclined to think the pagoda of stone mentioned above to be the one he means. However, it appears from good authorities, that the sea on this part of the coast is encroaching by very slow, but no less certain steps, and will perhaps in a lapse of ages entirely hide these magnificent ruins.

About a mile to the southward are other structures of stone, of the same order as those north, but having been left unfinished, at first sight appear different: the southermost of these is about forty feet in height, twenty-nine in breadth, and nearly the same in length, hewn from a single mass: the outside is covered with sculpture, (for an account of which see Inscriptions:) the next is also cut from one mass of stone, being in length about forty-nine feet, in breadth and height twenty-five, and is rent through the middle from the top to the bottom; a large fragment from one corner is observed on the ground: No account is preserved of the powerful cause which produced this destructive effect. Beside these, are three smaller structures of stone. Here is also the *śingam*, or lion, very large, but, except in size, I can observe no difference from the figures of the same animal northerly.

Near

Near the *śingam*, is an elephant of stone about nine feet in height, and large in proportion : Here, indeed, we observe the true figure and character of the animal.

The *Bráhmén* before mentioned informed me, that their *Puránas* contained no account of any of the structures here described, except the *stone pagodas near the sea*, and the *pagodas of brick at the village*, built by the DHERMA Rajah, and his brothers : He, however, gave me the following traditional account : That a northern prince (perhaps one of the conquerors) about one thousand years ago, was desirous of having a great work executed, but the *Hindu* sculptors and masons refused to execute it on the terms he offered : Attempting force I suppose, they, in number about four thousand, fled with their effects from his country hither, where they resided four or five years, and in this interval executed these magnificent works. The prince at length discovering them, prevailed on them to return, which they did, leaving the works unfinished as they appear at present.

To those who know the nature of these people, this account will not appear improbable. At present we sometimes hear of all the individuals of a particular branch of trade deserting their houses, because the hand of power has treated them somewhat roughly ; and we observe like circumstances continually in miniature. Why the *Bráhméns* resident on the spot keep this account secret I cannot determine ; but am led to suppose they have an idea, the more they can envelope the place in mystery, the more people will be tempted to visit and investigate, by which means they profit considerably.

The difference of style in the architecture of these structures, and those on the coast hereabouts, (with exceptions to the pagodas of brick at the village, and that of stone near the sea, both mentioned in the *Puránas*, and which are not different,) tends to prove that the artists were not of this country ; and the resemblance of some of the figures and pillars to those in the *Elephanta* Cave, seems to indicate they were from the northward. The fragments of bricks, at the top of the rock, may be the remains of habitations raised in this place of security by the fugitives in question. Some of the Inscriptions, however, (all of which were taken by myself with much care,) may throw further light on this subject.

INSCRIPTIONS AT MAHABALIPOORUM.

On the lower Division of the Southern Structure and the Eastern Face.

ಶ್ರೀ ದೇವತೆಯೆ

This Inscription is above a Figure apparently Female, but with only *one* Breast, (as at the Cave in *Elephanta* Island.) Four Arms are observed; in one of the Hands a Battle-axe, a Snake coiled up on the Right Side.

ಶ್ರೀ ದೇವತೆಯೆ

Above a Male Figure with four Arms.

Northern Face.

ಶ್ರೀ ದೇವತೆಯೆ

Above a Male Figure with Four Arms; a Battle-axe in one of the Hands.

Southern Front.

ಶ್ರೀ ದೇವತೆಯೆ

Above a Male Figure, with four Arms.

ಶ್ರೀ ದೇವತೆಯೆ

Above a Male Figure.

On

ஹஹஹ ஹ ஹஹஹ
பு ஹ ஹஹ

Above a Male Figure, with four Arms, and the *Bráhménical* String.

Southern Face.

புஹஹ
ஹ ஹஹஹ

Above a Male Figure, with four Arms.

ஹஹ ஹஹஹ ஹஹ
ஹ ஹஹஹஹஹஹ

Above a Male Figure, with four Arms, leaning on a Female, seeming to stoop under the Weight.

ஹ ஹஹ.

Above a Male, with four Arms. A Scepter appears in one Hand. This Inscription being very difficult to come at, is perhaps not quite correct.

ஹ ஹஹ
ஹஹஹஹஹ

Above a Male Figure, with four Arms.

ಶ್ರೀ ಮಹಾದೇವಾಯ ನಮಃ
 ಶ್ರೀಮದ್ರಾಜಾಧಿಪತಯೇ ನಮಃ
 ಸುಖಲಯ

This Inscription is on the Pavement of the Choultry, near the Village, very roughly cut, and apparently by different Artists from those who cut the former.

V.

ACCOUNT OF THE HINDUSTANEE HOROMETRY.

By JOHN GILCHRIST, Esq.

THE inhabitants of *Hindustan* commonly reckon and divide time in the following manner; which exhibits a horography so imperfect, however, that its inaccuracy can only be equalled by the peoples' general ignorance of such a division, that, with all its imperfections and absurdities, must nevertheless answer the various purposes of many millions in this country. I shall therefore explain and illustrate so complex and difficult a subject, to the best of my ability and information from the natives, without presuming, in the discussion here, to encroach on the province of the chronologist or astronomer, who may yet investigate this matter with higher views, while my aim is, in the mean time, perhaps, not less usefully confined to ordinary cases and capacities entirely.

60 *Til* or *unoo pul* (a sub-division of time, for which we have no relative term but *thirds*, as the series next to * *seconds*) are one *bipul*.

60 *Bipul*

* On this principle one minute of ours being equal to 24 *puls*, and one moment to 24 *bipuls*, it is neither easy nor necessary to trace and mark the coincidence of such diminutives any farther. I may, however, add what the *Furhung Kardance* contains, relative to these horal divisions, as follows.

60 *Bipul* (which corresponds progressively only with our *seconds* or moments) one *pul*.

60 *Pul* (correlative as above, in this sexagesimal scale with our *minutes* or *primes*) one *g,buree*, and 60 *g,buree* (called also, *d,und*, which we may here translate *hour*) constitute our twenty-four hours *, or one whole day ; divided into 4 *pubur din*, diurnal watches ; 4 *pubur rat*, nocturnal watches.

During the equinoctial months, there are just 30 *g,burees* in the day, and 30 also in the night ; each *g,buree* properly occupying a space, *at all times*, exactly equal to 24 of our minutes ; because 60 *g,burees*, of 24 *English* minutes each, are of course 24 *English* hours of 60 *English* minutes each. For nations under or near the equator, this horological arrangement will prove convenient enough, and may yet be adduced as one argument for ascertaining with more precision the country whence the *Hindus* originally came, provided they are, as is generally supposed, the inventors of the system under consideration here. The farther we recede from the line, the more difficult and troublesome will the present plan appear. And as in this country the artificial day commences with the dawn, and closes just after sun-set, it becomes necessary to make the *puburs* or *watches* contract and expand occasionally, in proportion to the length of the day, and the consequent shortness of the night, by admitting a greater or smaller number of *g,burees* into these grand diurnal and nocturnal divisions alternately, and according to the sun's progress to or from the tropicks. The summer solstitial day will, therefore, consist of 34 *g,burees*, and the night of 26 only, or *vice versa*: but, what is most sin-

4 *Renco* constitute 1 *puluk* ; 16 *pulaks*, 1 *kast,ha* ; 30 *kast,has*, 1 *kula* ; 30 *kulas*, 1 *guhun* ; 60 *guhuns*, 1 *dund* ; 2 *dunds*, 1 *g,huree* ; 30 *dunds*, 1 *din* ; 60 *dunds*, 1 *din o rat*. From this work it is evident that there exist various modes of dividing time in *India*, because a little farther on the author states the following also, viz.

60 *Zurru*, 1 *dum* ; 60 *dums*, 1 *lumhu*, &c. which, as well as the many local modes in use, it would be superfluous to enumerate. I shall therefore attend only to the former, so far as they agree with our text. The *kast,ha* is equal to 4 *tils*, the *kula*, or two *bipuls* ; the *guhun* and *pul* are the same ; so are the *dund* and (*kuchee*) *g,huree* ; but the learner must advert to the *g,huree* in this note, being *pukkee*, or two of the former ; as this distinction is frequently used when they allot only four *g,hurees* to the *pubur* ; and *pukkee* or *double* is always understood.

* *Lumhu* and *dum*, perhaps, answer to our *minutes* and *seconds*, as the constituent parts of the *fa,ut*, or hour, 24 of which are said to constitute a natural day, and are reckoned from 1 o'clock after mid-day, regularly on through the night ; also up to 24 o'clock the next noon, as formerly was the case, and which is still observed in some places on the continent ; or, like ours, from 1 after noon to 12 at midnight ; and again, from 1 after midnight to 12 o'clock the next noon. Whether those few who can talk of the *fa,ut* at all, have learnt this entirely from us or not, is a point rather dubious to me ; but I suspect they have it from the *Arabians*, who acquired this with other sciences from the *Greeks*.

gular in the *Indian* horometry, their *g,burees* are unequally distributed among the day and night watches; the former varying from 6 to 9 in the *latter*, which are thus prevented from any definite coincidence with our time, except about the equinoctial periods only, when one *pubur* nearly corresponds to 3 *English* hours. I say *nearly*, because even then the four middle watches have only 7 *g,burees*, or 2 hours 48 minutes of ours; while the extremes have 8 *g,burees* a-piece, or 24 *English* minutes more than the others, and consequently agree with our 3 hours 12 minutes; while at other times the *pubur* is equal to no less than 3 hours 36 minutes; a fact which I believe has never yet been stated properly; though many writers have already given their sentiments to the public on the subject before us; but they were probably misled by saying 4-3s are 12 hours for the day, and the same for the night. Without considering the sexagesimal division, we must first make of the whole 24 hours, or 8 watches, 4 of which, during both equinoxes, having 7 *g,burees* only, give 28: and the other 4 extreme watches, consisting at these periods also of 8 *g,burees* each form 32—60 in all; not 64 *g,burees*, * as some calculators have made it, who were not aware that the *g,buree*, or *dund*, never can be more nor less than 24 of our minutes, as I have proved above by considering that 24 multiplied by 60, or 60 by 24, must be alike, which I shall make still more evident hereafter. In judicial and military proceedings, the present enquiry may, sometimes, assume considerable importance; and, as an acquaintance with it may also facilitate other matters, I have endeavoured to exhibit the Indian horometrical system contrasted with our own, upon a dial or horal diagram, calculated for one natural day of 24 hours, and adjusted to both the equinoctial and solstitial seasons, comprising four months of the twelve, that these may serve as some basis or data for a general coincidence of the whole, at any intermediate period, until men who are better qualified than the writer of this paper to execute such a task

* One of those vulgar errors originating in the crude and superficial notions which none take the trouble to examine or correct, and being thus implicitly adopted, are not soon nor easily eradicated; nay, this very idea of *sixty-four* may be supported from an old distich.

At,h purhur choun fut g,huree, k,huree pokaroon pee,

Jee nikse, Jo pee mile; nikus ja, e yih jee.

But I answer, the bard seems a sorry astronomer, or he would not have followed the erroneous opinion of there being 32 *g,hurees* in each of the eight *pubur*, and 64 in the natural day; though this prevails among the illiterate Indians uncontroverted to the present hour; and, were I not to expose it here, might continue a stumbling block for ever; and in this random way have we also imbibed the doctrine that 4 *pubur*, of three hours each, are twelve of course; and eight of these must give our 24. A brief, but truly incorrect, mode of settling this account.

with

with precision, condescend to undertake it for us. He is even sanguine enough to hope that some able artist in Europe may yet be induced to construct the dials of clocks, &c. for the Indian market on the principles delineated here, and in *Persian* figures also. But we must now proceed to an explanation of the horal diagram adapted to the meridian of Patna, the central part of the Benares Zemindary, and the middle latitudes of *Hindustan*. The two exterior rings of this circle contain the complete 24 English hours, noted by the Roman letters, I, II, III, IV, &c. and the minutes are marked in figures, 24, 48, 12, 36, 60, agreeably to the sexagesimal scale, whereon the equi-distant interfections of this dial are founded; the meridional semicircles of which represent our semidian watch-plates, and for obvious reasons, with the modern horary repetition. See the note in page 864. I have distinguished the eight (4 diurnal and 4 nocturnal) watches, or *puburs*, from I. to IV. by Roman letters also, with the *chime* (gujur) or number of bells struck at *each* in large figures, below the *pubur* letter, to which they belong, and in the same reiterated way; but these, instead of ranging from the meridian, like the English hours, commence with the equatorial and tropical lines alternately, as their situations and spaces must regularly accord with the rising and setting of the sun at the vernal and autumnal equinoxes, as also at the summer and winter solstices. The days then differ in length alternately from 34 to 26 *g,burees*, as noted by the chime figures of every watch; all of which will be more evident from the mode of inserting them, and the manner that the plate has been shaded, to illustrate these circumstances fully. II. *pubur*, however, never varies; and being upon the meridional line, it of course constantly falls in with our XII. day and night. The fourth ring from the circumference shews the *g,burees*, when the day is longest, running with the sun to the top, and from this to VI. P. M. for the subdivisions of the day, and in the same manner by the bottom onwards for those of the night, throughout these concatenated circular figures 1. 2. 3. 4. 5. 6. 7. 8. 9. 1. 2, &c. q. v. in the plate. Still more interior appear the equinoctial *g,burees*, and on the same principles exactly. Within these come the winter solstitial *g,burees*, so clearly marked as to require no further elucidation here; except that in the three series of convergent figures now enumerated, the reader will recollect, when he comes to the highest number of *g,burees* in any *pubur*, to trace the *latter*, and its chime, or number of bells, out by the *g,buree* chord. For instance, when the days are shortest, begin 48 minutes after VI. A. M. and follow the coincident line inward to the centre, till you reach 9 and 34 for the closing *g,buree* and *gujur* of the night: thence go round
in

in succession upwards with the day *g,burees* 1. 2. 3. 4. 5. 6. 7. the chord of which last terminates 36 minutes after IX. and has 7 upon it for 7 bells, and 1 for *ek pubur din*, the first watch of the day. In this way the whole may be compared with our time, allowing not only for the different meridians in this country, but for the several intermediate periods, and the difficulty of precisely ascertaining the real rising of the sun, &c. Nearest the centre I have inserted the prime divisions or *puls* of every *g,buree*, viz. 60, so—15, 30, 45, 60, in two spaces only, because these are the invariable constituent minute parts of the *g,buree* at all seasons of the year, and consequently apply, (though omitted to prevent confusion,) as in the plate, to every one of the horal sections delineated there, into which the whole dial is equally divided. The intelligent reader may now consult the diagram itself, and I trust, with much satisfaction, as it, in fact, was the first thing that gave me any accurate knowledge of the *arrangement* and *coincidence* of the *Hindustanee* with the *English* hours, or of the rules on which their economy is founded. I certainly might have traced out and inserted the whole for a complete year, had not the apprehension of making the figure too intricate and crowded for general utility, determined me to confine it to the elucidation of four months only; especially as the real and artificial variations can be learned from an *Indian* astronomer, by those who may wish to be minutely accurate on this subject; whence every one will have it in his own power to note the exact horal coincidences at any given period, by extending the present scheme only a little farther; because the natives never add nor subtract a *g,buree* until the 60 *puls* of which it consists are accumulated, but, with their usual apathy, continue to distribute and reduce the constant increasing and decreasing temporal fractions among or from the several *puburs* with little or no precision. Nay, they often have recourse to the last of the diurnal or nocturnal subdivisions for this purpose, when the grand horologist himself is about to inform them, that now is the time to wait for the whole of their lost minutes, before they proceed on a new score, at the risk, perhaps, of making the closing *g,buree* of the day or night as long as any two of the rest. On the other hand, when they have previously galloped too fast with time, the same ill-fated hindmost *g,buree* may be reduced to a mere shadow, that the *G,buree,alee* may find the exact number, without regarding its disproportion to the rest in the same *pubur* at all. So much this and similar freedoms have been and can be taken with time in Hindustan, that we may frequently hear the following story: While the fast of *Rumuzan* lasts, it is not lawful for the *Mussulmans* to eat or drink in the day;

day; though at night they not only do both, but can uninterruptedly enjoy its other pleasures also; and upon such an occasion, a certain *Omra* sent to enquire of his *G, buree, alee*, if it was still night; to which the complaisant bellman replied in the true style of oriental adulation, *Rat to ho chookee mugut peer moorshid ke waste do g, buree, myn luga rukee*—"Night is past to be sure; but I have yet two hours in reserve for his worship's conveniency." The apparatus with which the hours are measured and announced, consists of a shallow bell-metal pan, named, from its office, *g, buree, al*, and suspended so as to be easily struck with a wooden mallet by the *G, buree, alee*, who thus strikes the *g, burees* as they pass, and which he learns from an empty thin brass cup (*kutoree*) perforated at bottom, and placed on the surface of water in a large vessel, where nothing can disturb it, while the water gradually fills the cup, and sinks it in the space of one *g, buree*, to which this hour-cup or *kutoree* has previously been adjusted astronomically by an astrolabe, used for such purposes in *India*. These *kutorees* are now and then found with their requisite divisions and subdivisions, very scientifically marked in *Sanscrit* characters, and may have their uses for the more difficult and abstruse operations of the mathematician or astrologer: but for the ordinary occurrences of life, I believe the simple rude horology described above suffices (perhaps divided into fourths of a *g, buree*) the Asiatics in general, who, by the bye, are often wonderfully uninformed respecting every thing of this kind. The whole, indeed, appears, even to the better sorts of people, so perplexing and inconvenient, that they are very ready to adopt our divisions of time, when their residence among or near us puts this in their power: whence we may, in a great measure, account for the obscurity and confusion in which this subject has hitherto remained among the *Indians* themselves; and the consequent glimmering light that preceding writers have yet afforded in this branch of oriental knowledge, which really seems to have been slurred over as a drudgery entirely beneath their notice and enquiry. The first *g, buree* of the first *pubur* is so far sacred to the Emperor of Hindustan, that his *G, buree, alee* alone strikes one for it. The second *g, buree* is known by two blows on the *g, buree, al*, and so on: one stroke is added for every *g, buree* to the highest, which (assuming the equinoctial periods for this statement) is eight, announced by eight distinct blows for the past *g, burees*; after which, with a slight intermission, the *gujur* of eight bells is struck or rung, as noted in the diagram by the chime figure 8, and then one hollow sound publishes the first, or *ek pubur din* or *rat*, as this may happen, and for which consult the plate.

plate. In one *g,buree*, or 24 of our minutes, after this, the same reiteration takes place; but here stops, at the seventh or meridional *g,buree*, and is then followed with its *gujur*, or chime of 15; of which 8 are for the first watch, and 7 for the second, or *do pubur*, now proclaimed by two full distinct sounds. We next proceed with 7 more *g,burees*, exactly noting them as before, and ringing the *gujur* of 22 strokes, after the seventh *g,buree*, or *teen pubur*, also known by three loud sounds. The fourth *pubur* has, like the first, 8 *g,burees*, and differs in no other respect than having a *gujur* of 30 after the equatorial *g,buree* has been struck, the whole being closed by four loud blows on the *g,buree,al* for *char pubur din* or *rat*; the repetition being the same day and night during the equinoctial periods, which I have here given merely as an example more easy for the scholar's comprehension at first than the rest. The extreme *gujurs* may be properly termed the evening and morning *bell*; and, in fact, the word seems much restricted to these, as *pubur* alone is more commonly used for the middle *chimes* than *gujur* appears to be. Six or eight people are required to attend the establishment of a *g,buree*; four through the day, and as many at night; so that none but wealthy men, or grandees, can afford to support one as a necessary appendage of their consequence and rank, which is convenient enough for the other inhabitants, who would have nothing of this sort to consult, as (those being excepted which are attached to their armies) I imagine there are no other public (*g,burees*) clocks in all India.

VI.

ON INDIAN WEIGHTS AND MEASURES.

By H. T. COLEBROOKE, Esq.

COMMENTATORS reconcile the contradictions of ancient authors, on the subject of weights and measures, by a reference to different standards. To understand their explanations, I have been led to some enquiries, the result of which I shall state concisely, to alleviate the labour of others who may seek information on the same subject; omitting, however, such *measures* as are of very limited use.

Most of the authorities which I shall quote have not been consulted by myself,

but are assumed from the citations in a work of GO'PA'LA BHATTA', on *Numbers and Quantities*, which is intitled *Sanc'byaparimāna*.

MENU, YA'JNYAWALEYA, and NA'REDA, trace all weights from the least visible quantity, which they concur in naming *trasarēnu*, and describing as the very small mote which may be discerned in a sun-beam passing through "a lattice." Writers on medicine proceed a step further, and affirm, that a *trasarēnu* contains thirty *paramānu*, or atoms: they describe the *trasarēnu* in words of the same import with the definitions given by MENU, and they furnish another name for it, *vansī*. According to them, eighty-six *vansīs* make one *marīchi*, or sensible portion of light.

The legislators above named proceed from the *trasarēnu* as follows:

8 <i>trasarēnus</i>	= 1 <i>licsha</i> , or minute poppy seed.
3 <i>licshas</i>	= 1 <i>rāja sbershapa</i> , or black mustard seed.
3 <i>rāja sbershapas</i>	= 1 <i>gaura sbershapa</i> , or white mustard seed.
6 <i>gaura sbershapas</i>	= 1 <i>yava</i> , or middle sized barley-corn.
3 <i>yavas</i>	= 1 <i>crīṣṇala</i> , or seed of the <i>gunjā</i> .

This weight is the lowest denomination in general use, and commonly known by the name of *retti*, corrupted from *retticā*, which, as well as *racticā*, denotes the red seed, as *crīṣṇala* indicates the black seed of the *gunjā* creeper. Each *retti* used by jewellers is equal to $\frac{7}{8}$ ths of a carat. The seeds themselves have been ascertained by Sir WILLIAM JONES, from the average of numerous trials, at $1\frac{3}{16}$ grain. But fictitious *rettis*, in common use, should be double of the *gunjā* seed; however, they weigh less than two grains and a quarter. For the *ficca* weight contains $179\frac{2}{3}$ grains nearly; the *māsha*, $17\frac{3}{8}$ nearly; the *retti*, $2\frac{3}{16}$ nearly. Writers on medicine trace this weight from the smallest sensible quantity in another order.

30 <i>paramānus</i> , or atoms	= 1 <i>trasarēnu</i> , or <i>vans'ī</i> .
86 <i>vans'</i>	= 1 <i>marīchi</i> , or sensible quantity of light.
6 <i>marīchis</i>	1 <i>rāgicā</i> , or black mustard seed.
3 <i>rāgicās</i>	= 1 <i>sbershapa</i> , or white mustard seed.
8 <i>sbershapas</i>	= 1 <i>yava</i> , or barley-corn.
4 <i>yavas</i>	= 1 <i>gunjā</i> , or <i>racticā</i> .

A *retticā* is also said to be equal in weight to four grains of rice in the husk: and

GO'PA'LA

GO'PA'LA BHATTA' affirms that one seed of the *gunjà*, according to writers on astronomy, is equal to two large barley-corns. Notwithstanding this apparent uncertainty in the comparison of a seed of the *gunjà* to other productions of nature, the weight of a *raëticà* is well determined by practice, and is the common medium of comparison for other weights. These I shall now state on the authority of MENU, YA'JNYAWALEYA, and NA'REDA.

WEIGHTS OF GOLD.

5 <i>crishnalas</i> , or <i>raëticàs</i>	= 1 <i>māsba</i> , <i>māsbaca</i> , or <i>māsbica</i> .
16 <i>māsbas</i>	= 1 <i>carsha</i> , <i>acsha</i> , <i>tólaca</i> , or <i>suverna</i> .
4 <i>carshas</i> , or <i>suvernas</i>	= 1 <i>pala</i> , (the same weight, which is also denominated <i>nishca</i> .)
10 <i>palas</i>	= 1 <i>dharana</i> of gold.

YA'JNYAWALEYA adds, that five *suvernas* make one *pala* (of gold) according to some authorities.

WEIGHTS OF SILVER.

2 <i>raëticàs</i> , or seeds of the <i>gunjà</i>	= 1 <i>māsbaca</i> of silver.
16 <i>māsbacas</i>	= 1 <i>dharana</i> of silver, or <i>purāna</i> .
10 <i>dharanas</i> of silver	= 1 <i>satamāna</i> or <i>pala</i> of silver.

But a *carsha*, or eighty *raëticàs* of copper, is called a *pana*, or *cārshāpana*.

Commentators differ on the application of the several terms. Some consider *crishnala* as a term appropriated to the quantity of one *raëticà* of gold; but CUL-LU'CA BHATTA' thinks the *suverna* only peculiar to gold, for which metal it has also a name. A *pana*, or *cārshāpana*, is a measure of silver as well as of copper. There is a further diversity in the application of the terms; for they are used to describe other weights. NA'REDA says a *māsba* may also be considered as the twentieth of a *cārshāpana*; and VRIHASPATI describes it as the twentieth part of the *pala*. Hence we have no less than four *māsbas*: one *māsba* of five *raëticàs*; another of four *raëticàs*, (according to NA'REDA;) a third of sixteen *raëticàs*, according to VRIHASPATI;) and a fourth (the *māsbaca* of silver) consisting of two *raëticàs*; not to notice the *māsbaca* used by the medical tribe, and consisting of ten, or, according to some authorities, of twelve, *raëticàs*, which may be the same as the jeweller's *māsba* of six double *rettis*. To these I do not add the *māsba* of eight *raëticàs*, because it has been explained, as measured by eight silver *retti* weights, each twice as heavy as the seed; yet, as a practical denomination, it must be noticed. Eight such *rettis* make one *māsba*; but twelve *māsbas* compose one *tola*.

This

This *tôla* is nowhere suggested by the Hindu legislators. Allowing for a difference in the *retti*, it is double the weight of the legal *tôla*, or 210 grains instead of 105 grains.

A *nishcâ*, as synonymous with *pala*, consists of five *suvernas*, according to some authors. It is also a denomination for the quantity of one hundred and fifty *suvernas*. Other large denominations are noticed in dictionaries.

108 *suvernas*, or *tôlacas*, of gold, constitute an *urubbûshana*, *pala*, or *dinâra*.

100 *palas*, or *nishcas*, make one *tulâ*; 20 *tulâs*, or 2000 *palas*, one *bbâra*; and 10 *bbâra*, one *âcbita*.

200 *palas*, or *nishcas*, constitute one *bâra*.

According to DA'NAYO'GI'SWARA, the tenth of a *bbâra* is called *ad'bâra*, which is consequently synonymous with *bâra*, as a term for a specifick quantity of gold.

GO'PA'LA BHATTA' also states other weights, without mentioning by what classes they are used. I suspect an error in the statement, because it reduces the *mâsha* to a very low denomination, and I suppose it to be the jeweller's weight.

6 *râjicâs* (*râcticâs*) = 1 *mâshaca*, *béma*, or *vânaca*.

4 *vânacas* = 1 *sala*, *dharana*, or *tanca*.

2 *tancas* = 1 *côna*.

2 *cônas* = 1 *carsha*.

Probably it should be *râcticâs* instead of *râjicâs*, which would nearly correspond with the weights subjoined, giving twenty-four *retticâs* for one *dharana* in both statements. It also corresponds with the tables in the *Ayén Acberî*, (vol. iii. p. 94.) where a *tânc* of twenty-four *rettis*, fixed at ten barley-corns to the *retti*, contains two hundred and forty barley-corns; and a *mâsha* of eight *rettis*, at seven and a half barley-corns each, contains sixty *rettis*; consequently four *mâshas* are equal to one *tanca*, as in the preceding table; and six jeweller's *rettis* are equal to eight double *rettis*, as used by goldsmiths.

The same author (GO'PA'LA BHATTA') observes, that weights are thus stated in astronomical books:

2 large barley-corns = 1 seed of the *gunjà*.

3 *gunjâs* = 1 *balla*.

8 *ballas* = 1 *dharana*.

2 *dharanas* = 1 *alaca*.

1000 *alacas* = 1 *dbatâca*.

The tale of shells, compared to weight of silver, may be taken on the authority of the *Līlavatāi*.

20 <i>capardacas</i> , shells, or cowries	= 1 <i>cācīnī</i> .
4 <i>cācīnī</i>	= 1 <i>pana</i> , <i>cārśhāpana</i> , or <i>cārśhica</i> .
16 <i>para</i> (= 1 <i>purāna</i> of shells)	= 1 <i>bherma</i> of silver.
16 <i>bhermas</i>	= 1 <i>nishca</i> of silver.

It may be inferred that one shell is valued at one *raṭṭicā* of copper; one *pana* of shells at one *pana* of copper; and sixty-four *panas*, at one *tōlaca* of silver, which is equal in weight to one *pana* of copper. And it seems remarkable that the comparative value of silver, copper, and shells, is nearly the same at this time as it was in the days of BHA'SCARA*.

On the measures of grain GO'PA'LA BHATTA' quotes the authority of several *purānas*.

<i>Varāha purāna</i> :	1 <i>mushti</i> , or handful	= 1 <i>pala</i> .
	2 <i>palas</i>	= 1 <i>prasrīti</i> .
	8 <i>mustis</i>	= 1 <i>cunchi</i> .
	8 <i>cunchis</i>	= 1 <i>pushcala</i> .
	4 <i>pushcalas</i>	= 1 <i>ād' haca</i> .
	4 <i>ād' hacas</i>	= 1 <i>drōna</i> .
<i>Bhawishya purāna</i> :	2 <i>palas</i>	= 1 <i>prasrīti</i> .
	2 <i>prasrītis</i>	= 1 <i>cudava</i> .
	4 <i>cudavas</i>	= 1 <i>prastha</i> .
	4 <i>prasthas</i>	= 1 <i>ād' haca</i> .
	4 <i>ād' hacas</i>	= 1 <i>drōna</i> .
	2 <i>drōnas</i>	= 1 <i>cumb'ha</i> , or <i>sūrpa</i> .
	16 <i>drōnas</i>	= 1 <i>c'hārī</i> , or <i>śbārī</i> .
<i>Padme Purāna</i> :	4 <i>palas</i>	= 1 <i>cudava</i> .
	4 <i>cudavas</i>	= 1 <i>prast'ha</i> .
	4 <i>prast'has</i>	= 1 <i>ād' haca</i> .
	4 <i>ād' hacas</i>	= 1 <i>drōna</i> .
	16 <i>drōnas</i>	= 1 <i>c'hārī</i> .
	20 <i>drōnas</i>	= 1 <i>cumb'ha</i> .

* The comparative value of silver and copper was the same in the reign of ACBER; for the *dām*, weighing five *tanacs*, or twenty *māshas*, of copper, was valued at the fortieth part of the *Jelālī rupiya*, weighing twelve *māshas* and a half of pure silver; whence we have again the proportion of sixty-four to one.

	10 <i>cumb'ba</i> s	= 1 <i>bába</i> , or load.
<i>Scanda purána</i> :	2 <i>palas</i>	= 1 <i>prasrīti</i> .
	2 <i>prasrītis</i>	= 1 <i>cudava</i> .
	4 <i>cudavas</i>	= 1 <i>prast'ba</i> .
	4 <i>prast'ba</i> s	= 1 <i>àd'haca</i> .
	4 <i>àd'hacas</i>	= 1 <i>dróna</i> .
	2 <i>drónas</i>	= 1 <i>cumb'ba</i> according to some.
	20 <i>drónas</i>	= 1 <i>cumb'ba</i> according to others.

From these may be formed two Tables. The first coincides with texts of the *Varáha purána*, and is preferred by RAGHUNANDANA. The second, formed on the concurrent authority of the *Bhawishya*, *Padme* and *Scanda puránas*, is adopted in the *Calpateru*; rejecting, however, the *cumb'ba* of two *drónas*, and making the *pala* equal to the weight of three *tólas* and a half.

TABLE I.

8 <i>mushtis</i> , or handfuls,	= 8 <i>palas</i> = 4 <i>prasrītis</i> = 1 <i>cunchi</i> .
8 <i>cunchis</i>	= 1 <i>pushcala</i> .
4 <i>pushcalas</i>	= 1 <i>àd'haca</i> .
4 <i>àd'hacas</i>	= 1 <i>dróna</i> .
20 <i>drónas</i>	= 1 <i>cumb'ba</i> .

TABLE II.

4 <i>palas</i> = 2 <i>prasrītis</i> = 1 <i>cudava</i> or <i>śetticá</i>	14 <i>tólas</i> .
4 <i>cudavas</i> = 1 <i>prast'ba</i>	56 —
4 <i>prast'ba</i> s = 1 <i>àd'haca</i>	224 —
4 <i>àd'hacas</i> = 1 <i>dróna</i>	896 —
20 <i>drónas</i> = $1\frac{1}{4}$ <i>c'hārī</i> s = 1 <i>cumb'ba</i>	17,920 —
10 <i>cumb'ba</i> s = 1 <i>bába</i>	179,200 —

But some make two *drónas* equal to one *cumb'ba*.

Would it be unreasonable to derive the English coomb of four bushels from the *cumb'ba* of the *Hindus*? The *c'hārī*, subsequently described, contains 5832 cubick inches, if the cubit be taken at eighteen inches. It would consequently be equal to two bushels, two pecks, one gallon, and two thirds; and the *cumb'ba*, equal to one *c'hārī* and a quarter, will contain three bushels and three gallons nearly. According to LACSHMI'DHERA's valuation of the *pala*, at three *tólas* and a half, the *c'hārī* weighs 14,336 *tólas*, or 215lb. avoirdupois nearly; and the *cumb'ba* 17,920 *tólas*, or 268lb. which corresponds nearly to the weight of a coomb of good wheat; and a *bába* will be nearly equal to a wey, or a ton in freight.

The

The name of *śetticā* for the fourth of a *prast'ha* is assumed from the *Varāha purāna*; and HEMA'DRI accordingly declares it synonymous with *cudava*. The *Calpateru*, *Smṛtisara*, *Retnācara*, and *Samayapradīpa*, also make the *śetticā* equal to the *cudava*, or a quarter of the *prast'ha*; but it contains twelve *prasriti* according to these commentaries, and the *prasriti* is described in the *Dānacānda*, by LACSHMI'DHERA, author of the *Calpateru*, as the quantity held in both hands by a man of the common size. Twelve such handfuls fill a *cudava*, described as a vessel four fingers wide, and as many deep, which is used in measuring small wood, canes, iron, and other things. But VA'CHESPATIMISRA adopts this *cudava* of twelve *prasritis*, whence we have a third Table of legal Measures in general use.

TABLE III.

12 double handfuls	= 1 <i>cudava</i> .
4 <i>cudavas</i>	= 1 <i>prast'ha</i> .
4 <i>prast'has</i>	= 1 <i>ād' bacā</i> .
4 <i>ād' bacas</i>	= 1 <i>drōna</i> .
20 <i>drōnas</i>	= 1 <i>cumb'ha</i> .

Besides the difference already noticed on the subject of the *cumb'ha*, commentators have suggested wider differences. According to CULLU'CA BHATTA', it contains twenty *drōnas*; but this *drōna* contains two hundred *palas*.

In the *Dāna vivēca* the *cumb'ha* is stated at one thousand *palas*; in the *Retnācara*, at twenty *prast'has*. But, according to JA'TU'CARNA, five hundred and twelve *palas* only constitute a *cumb'ha*. This may be the same quantity with the *drōna*, as a measure or weight estimated by the hand. It should consist of four *ād' bacas*, each equal to four *prast'has*; and each of these weighing according to the *At'harva veda*, thirty-two *palas* of gold. This again seems to be the *prast'ha* of MAGAD'HA, described by GO'PATHA BRA'HMANA.

4 <i>crīṣṇālas</i>	= 1 <i>māśa</i> .
64 <i>māśas</i>	= 1 <i>pala</i> .
32 <i>palas</i>	= 1 <i>prast'ha</i> , as used in MAGAD'HA.

Since the *pala* of gold weighs 420 troy grains, the *prast'ha* contains one pound avoirdupois, fourteen ounces and three quarters nearly. The *drōna*, last mentioned, contains 30 lb. 11 oz. and a fraction; and a *cumb'ha* of twenty such *drōnas*, 614 lb. 6 oz. and a half nearly.

The measures of grain in common use, are probably derived from the ancient *cumb'ha*

cumb'ha and *dróna*; but their names are not suggested by any of the preceding Tables. Twenty *cát'hás* make one *bísí*; and sixteen *bísís* one *pautí*. The size of the *cát'há* varies in different districts; in some containing no more than two and a half *śér* of rice; in others five *śér*, (80 *ficca* weight;) or even more. In the southern districts of Bengal, a measure of grain is used which contains one *śér* and a quarter. It is called *réc*. Four *récs* make one *páli*; twenty *pális*, one *solí*; and sixteen *solís*, one *cáben*.

The *Vrihat Rájamartanda* specifies measures which do not appear to have been noticed in other *Sanścrit* writings.

$$\begin{aligned} 24 \text{ tólacas} &= 1 \text{ śér.} \\ 2 \text{ śér} &= 1 \text{ prabb.} \end{aligned}$$

It is mentioned in the *Ayén Ackberí*, that the *śér* formerly contained eighteen *dáms* in some parts of *Hindustán*, and twenty-two *dáms* in others; but that it consisted of twenty-eight *dáms* at the commencement of the reign of ACBER, and was fixed by him at thirty *dáms*. The *dám* was fixed at five *táncs*, or twenty *máshas*; or, as stated in one place, twenty *máshas* and seven *rettis*. The ancient *śér*, noticed in the *Ayén Ackberí*, therefore, coincided nearly with the *śér* stated in the *Rájamartanda*. The double *śér* is still used in some places, but called by the same name (*panchaféri*) as the weight of five *śér* used in others.

For measures used in *Mit'hila*, and some other countries, we have the authority of CHANDE'SUARA, in the *Bála bbúshana*. They differ from the second table, interposing a *mánica* equal to a fourth of a *c'hári*, and making the *báha* equal to twenty *c'háris*.

4 <i>palas</i>	= 1 <i>cudava</i> .
4 <i>cudavas</i>	= 1 <i>prast'ha</i> .
4 <i>prast'has</i>	= 1 <i>àd'haca</i> .
4 <i>àd'hacas</i>	= 1 <i>dróna</i> .
4 <i>drónas</i>	= 1 <i>mánica</i> .
4 <i>mánicas</i>	= 1 <i>c'hári</i> .
20 <i>c'háris</i>	= 1 <i>báha</i> .

I GOPA'LA BHATTA' states another set of measures, without furnishing a comparison to any determinate quantity otherwise known.

4 <i>áyus</i>	= 1 <i>śácsha</i> .
4 <i>śácshas</i>	= 1 <i>bilwa</i> .
4 <i>bilwas</i>	= 1 <i>cudava</i> .

4 *cudavas*

4 <i>cudavas</i>	= 1 <i>prast'ba</i> .
4 <i>prast'bas</i>	= 1 <i>c'bari</i> .
4 <i>c'baris</i>	= 1 <i>goni</i> .
4 <i>gonis</i>	= 1 <i>dronica</i> .

I have already quoted a comparison of the *cudava* to a practical measure of length; and we learn from the *Lilavati*, that the *c'bari*, or *c'barica*, of MAGAD'HA, should be a cube measured by one cubit. "A vessel measured by a cubit, in every dimension, is a *ghanabasta*, which, in MAGAD'HA is called *c'barica*: it should be made with twelve corners, or angles formed by surfaces; (that is, it should be made in the form of a solid, with six faces.)

"The *c'barica* of UTCALA is in general use on the south of the river *Godaveri*: there the *drona* is the sixteenth part of a *c'bari*; (as in the Second Table;) the *ad'haca* the fourth of a *drona*; the *prast'ba*, the fourth of an *ad'haca*; and the *cudava*, a quarter of a *prast'ba*. But the *cudava*, formed like a *ghanabasta*, should be measured by three fingers and a half in every dimension. This vessel must be made of earth, or similar materials; for such alone is a *cudava*."

Both by this statement, and by the Second Table, a *c'bari* consists of 1026 *cudavas*; and since the cubit must be taken at twenty-four fingers, or *angulas*, a solid cubit will contain 13,824 cubick *angulas* or fingers; and one *cudava* thirteen and a half cubick *angulas*. Its solid contents, therefore, are the half of a cube whose side is three fingers. A slight change in the reading would make the description quoted from the *Lilavati* coincide with this computation; and the *c'barica* of UTCALA and MAGAD'HA would be the same.

However, LACSHMI'DHERA has described the *cudava* as a vessel four fingers wide, and as many deep, which makes a *cudava* of sixty-four cubick *angulas*, or twenty-seven cubick inches. This will exhibit an *ad'haca* of 432 inches, similar to a dry measure used at Madras, which is said to contain 423 cubick inches, and is the eighth part of a *marcal* of 3384 cubick inches, or nearly double the *drona* of 1728 cubick inches. If the *cudava* of UTCALA be a cube whose side is three and a half fingers, containing forty-three cubick *angulas* nearly, or eighteen cubick inches and a fraction, the *c'barica* of UTCALA contains 44,118 cubick *angulas*, or 18,612 cubick inches, taking the cubit at eighteen inches.

On the measures of space, GO'PA'LA BHATTA' quotes a text from *Vriddha MENU*, which traces these from the same minute quantity as weights.

$$8 \text{ trasarénus} = 1 \text{ rénu.}$$

6 A

8 rénus

8 <i>rénus</i>	= 1 <i>bálágra</i> , or hair's point.
8 <i>bálágras</i>	= 1 <i>licsha</i> , or poppy seed.
8 <i>licshas</i>	= 1 <i>yúca</i> .
8 <i>yúcas</i>	= 1 <i>yava</i> , or very small barley-corn.
8 <i>yavas</i>	= 1 <i>angula</i> , or finger.

From this MENU proceeds to longer measures.

12 <i>angulas</i> , or fingers,	= 1 <i>vitesti</i> , or span.
2 <i>vitestis</i> , or spans,	= 1 <i>besta</i> , or cubit.

In the MA'RCANDE'YA *purána* measures are traced from atoms.

8 <i>paramánus</i> , or atoms,	= 1 <i>para sushma</i> , most minute substance.
8 <i>para sushmas</i>	= 1 <i>trasarénu</i> .
8 <i>trasarénus</i>	= 1 <i>mehirajaés</i> , grain of sand or dust.
8 grains of sand	= 1 <i>bálágra</i> , or hair's point.
8 <i>bálágras</i>	= 1 <i>licsha</i> .
8 <i>licshas</i>	= 1 <i>yúca</i> .
8 <i>yúcas</i>	= 1 <i>yava</i> .
8 <i>yavas</i>	= 1 <i>angula</i> , or finger.
6 fingers	= 1 <i>pada</i> , or breadth of the foot.
2 <i>padas</i>	= 1 <i>vitesti</i> , or span.
2 spans	= 1 cubit (<i>besta</i> .)
2 cubits	= the circumference of the human body.
4 cubits	= 1 <i>dbanush</i> , <i>denda</i> , or staff.
2 <i>dendas</i>	= 1 <i>naricá</i> (or <i>nàdì</i> .)

In another place the same *purána* notices two measures, one of which is often mentioned in rituals :

21 breadths of the middle of the thumb	= 1 <i>retni</i> .
10 ditto - - - - -	= 1 <i>pradesya</i> , or span, from the tip of the thumb to the tip of the fore-finger.

But, according to the *Calpateru*, it should be ten breadths of the thumb and a half. And we learn from the ADITYA *purána*, that, according to VYA'SA, it should be measured by the breadth of the thumb at the tip. The same *purána* makes two *retnis* (or 42 thumbs) equal to one *cishu* : but HA'RITA compares the *cishu* to the cubit, four of which it contains, according to his statement : and four *cishus* make one *nalwa*. Here again the ADITYA *purána* differs, making the *nalwa* to contain thirty *dbanush*. It concurs with authorities above cited, in the measures

measures of the cubits *denda* and *nádì*; the first containing twenty-four fingers; the second ninety-six fingers; and the *nádì* two *dendas*.

The same *purána* notices the larger measures of distance.

2000 *dbanusb* = 1 *crósa*.

2 *crófas* = 1 *gavyuti*.

8000 *dbanusb* = 1 *yójana*.

On one reading of the *VISHNU purána*, the *crósa* contains only one thousand *dbanusb*. Accordingly GO'PA'LA BHATTA' quotes a text, which acquaints us that " Travellers to foreign countries compute the *yójana* at four thousand "*dbanusb*:" but he adduces another text, which states the measures of the *crósa*, *gavyuti*, and *yójana*, as they are given in the *ADITYA purána*. The *Lílávati* confirms this computation.

8 barley-corns = 1 finger's breadth.

24 fingers = 1 *besta*, or cubit.

4 cubits = 1 *denda* (= 1 *dbanusb*.)

2000 *dendas* = 1 *crósa* *.

4 *crófas* = 1 *yójana*.

The *Lílávati* also informs us of the measures used for arable land, which are similar to those now in use.

10 hands = 1 *vansa*, or bamboo cane.

20 *vansas* (in length and breadth) = 1 *niranga* of arable land.

Divisions of time are noticed in the first chapter of MENU, (v. 64.)

18 *niméshas*, or the twinklings of an eye, = 1 *cásh't' b'à*.

30 *cásh't' b'às* = 1 *calá*.

30 *calas* = 1 *cshana*.

12 *cshanas* = 1 *mubúrta*.

30 *mubúrtas* = 1 day and night, (according to mean solar time.)

From this he proceeds to the divisions of the civil year.

15 days and nights (*abóráttra*) = 1 *pacsha*, or interval between the fizygies.

first and last *pacsha* = 1 month.

* If the cubit be taken at eighteen inches, then 4000 yards=1 standard *crósa*=2 miles and a quarter nearly: and 2000 yards=1 computed *crósa*=1 mile and one eighth: and MAJOR RENNEL states the *crós* as fixed by ACBER at 5000 *gez*=4757 yards=2 British miles and 5 furlongs; and the average common *crós* at one mile statute and nine tenths.

2 months	= 1 season (<i>rītu</i>)
3 seasons	= 1 <i>ayana</i> (half year)
2 <i>ayanas</i>	= 1 year.

According to the *Sūrya Siddhānta*.

6 respirations (<i>prāṇā</i>)	= 1 <i>vicalā</i> .
60 <i>vicalās</i>	= 1 <i>danda</i> .
60 <i>dandas</i>	= 1 fydereal day.

The *VISHNU purāna* states a mode of subdividing the day, on which GO'PALA' BHATTA' remarks, that "it is founded on astronomy," and subjoins another mode of subdivision.

Ten long syllables are uttered in one respiration (*prāṇā*.)

6 respirations	= 1 <i>vinādicā</i> .
60 <i>vinādicās</i>	= 1 <i>dbatā</i> .
60 <i>dbatās</i>	= 1 day and night, (or solar day.)

Proceeding to another Table, he says, the time in which ten long syllables may be uttered is equal to one respiration.

6 respirations	= 1 <i>pala</i> .
60 <i>palas</i>	= 1 <i>ghaticā</i> .
60 <i>ghaticās</i>	= 1 day and night.
30 days and nights	= 1 month.
12 months	= 1 year.

The *VARA'HA purāna* concurs with the *Sūrya Siddhānta* in another subdivision of time.

60 <i>cshanas</i>	= 1 <i>lava</i> .
60 <i>lavas</i>	= 1 <i>nimēśha</i> .
60 <i>nimēśhas</i>	= 1 <i>cāśt' bā</i> .
60 <i>cāśt' bās</i>	= 1 <i>atipala</i> .
60 <i>atipalas</i>	= 1 <i>vipala</i> .
60 <i>vipalas</i>	= 1 <i>pala</i> .
60 <i>palas</i>	= 1 <i>danda</i> .
60 <i>dandas</i>	= a night and day.
60 nights and days	= 1 <i>rītu</i> , or season.

But the *BHAWISHYA purāna* subdivides the *nimēśha* otherwise.

1 twinkling of the eye while a man is easy and at rest	= 30 <i>tatpanas</i> , or moments.
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1 *tatpana*

1 *tatpana* = 100 *trutis*.

1 *truti* = 1000 *samcramas*.

RAGHUNANDANA, in the *Jyótishatatwa*, gives a rule for finding the planets which preside over hours of the day, called *bórá*. “ Doubling the *ghatis* elapsed from the beginning of the day (or sun-rise at the first meridian) and dividing by five, the product shews the elapsed hours, or *bórás*. The sixth planet, counted from that which gives name to the proposed day, rules the second hour. The sixth counted from this rules the third; and so on for the hours of the day: but every fifth planet is taken for the hours of the night.” The order of the planets is ८ ५ ३ ২ ৪ ৬; consequently on a *Sunday* the regent of the several hours of the day and night are:

Day	1	2	3	4	5	6	7	8	9	10	11	12
	৩	৫	৮	৬	২	৪	৩	৫	৮	৬	২	৪
Night	1	2	3	4	5	6	7	8	9	10	11	12
	৮	৫	৩	২	৪	৬	৮	৫	৩	২	৪	৬

As the days of the week are found by taking every fourth in the same series, we might proceed by this rule to the first *bórá* of the subsequent day, whose regent, the fourth from ৩, is ৬; and thence proceed by the above-mentioned rule to the regents of *bórás* for *Monday*.

I subjoin the original passage, which was communicated to me by Mr. DAVIS, and add a verbal translation.

বর্ষপুৰ্ত্তে চ্যুতিকাহিনিয়া: কাৰ্য্যার্থ্য জোৰণতম: শৰাষ্ট্রাঃ
 দিলিগিছাৰা মত্তবাণকৃত্যা নিজাফাথা ৭তম: পৰুষ্কাঃ ॥
 তেথাপৰু। পৰ্য্যো বৃনক: সমোদ্বা দৌৰ্ডা পৌৰ।
 দেশাওৰ যোজমিত বিঘটীতি: পাৰ্হীনাতি: ॥ ১ ॥

“ The *ghaticas* elapsed from the beginning of the day being doubled, and divided by (five) arrows, shew the cords of time called *bórá*. In the day these cords are regulated by intervals of (six) seasons, counted from the particular regent of the day proposed; in the night by intervals of (five) arrows.

“ The commencement of the day, at preceding or subsequent meridians, before or after sun-rise, at the first meridian, is known from the interval of countries, or

“ distance

“ distance in longitude measured by *yójanas*, and reduced into *ghatis*, after deducting
“ a fourth from the number of *yójanas*.”

The coincidence of name for the hour, or twenty-fourth part of the day, is certainly remarkable. But until we find the same division of time noticed by a more ancient author than RAGHUNANDANA, it must remain doubtful whether it may not have been borrowed from *Europe* in modern times.

VII.

OF THE CITY OF PEGUE, AND THE TEMPLE OF SHOEMADOO PRAW.

By Captain MICHAEL SYMES.

THE limits of the ancient city *Pegue* may still be accurately traced by the ruins of the ditch and wall that surrounded it. From these it appears to have been a quadrangle, each side measuring about a mile and a half. In several places the ditch is nearly filled by rubbish that has been cast into it, or the falling in of its own banks: sufficient, however, still remains to shew that it once was no contemptible defence. The breadth I judged to be about 60 yards, and the depth ten or twelve feet; except in those places where it is choked up from the causes I have mentioned. There is still enough of water to impede a siege; and I was informed, that when in repair, it seldom, in the hottest season, sunk below the depth of four feet.

The fragments of the wall likewise prove that this was a work of considerable magnitude and labour. It is not easy to ascertain precisely what was its exact height; but we conjectured it to have been at least twenty-five feet; and in breadth at the base, not less than forty. It is composed of brick, badly cemented with clay mortar. Small equidistant bastions, about 300 yards asunder, are still discoverable: but the whole is in a state so ruinous, and so covered with weeds and briars, that it requires close inspection to determine the extent and nature of the defences.

In the center of each side there is a gateway, about thirty feet wide. These gateways were the principal entrances. The passage across the ditch is on a mound
of

of earth, which serves as a bridge ; and was formerly defended by a retrenchment, of which there are now no traces.

Nothing can exhibit a more striking picture of desolation than the inside of these walls. ALOMPRAW, when he carried the city by assault in the year 1757, razed every dwelling to the ground, and dispersed or led into captivity all the inhabitants. The pagodas, or praws, which are very numerous, were the only buildings that escaped the fury of the conquerors ; and of these the great pagoda of SHOEMADOO has alone been attended to, and repaired. After the demolition of the city, ALOMPRAW carried the captive monarch with his family to *Ava*, where he remained many years a state prisoner. YANGOON, or RANGOON, founded about this time, was by a royal mandate constituted the seat of provincial government, and Pegue entirely abandoned.

The present king of the *Birmans*, whose government has been less disturbed than that of any predecessor of his family, entirely altered the system which had been adopted by his father, and observed during the successive reigns of his two brothers, NAMDOGE PRAW, and SEMBAUN PRAW, and of his nephew CHENGUZA. He has turned his attention to the population and improvement, rather than the extension, of his dominions ; and seems more desirous to conciliate his new subjects by mildness, than to rule them through terror. He has abrogated several severe penal laws, imposed upon the *Taliens* or *Peguers* : justice is now distributed impartially ; and the only distinction at present between a *Birman* and *Talien*, consists in the exclusion of the latter from all public offices of trust and power.

No act of the *Birman* government is more likely to reconcile the *Taliens* to the *Birman* yoke, than the restoration of their ancient place of abode, and the preservation and embellishment of the pagoda of SHOEMADOO. So sensible was the King of this, as well as of the advantages that must accrue to the state from an increase of culture and population, that five years ago he issued orders to rebuild Pegue, encouraged new settlers by liberal grants, and invited the scattered families of former inhabitants to return and repeople their deserted city.

The better to effect this purpose, his *Birman* Majesty, on the death of TAO-MANGEE, the late *Mayoon*, or Viceroy, which happened about five years ago, directed his successor, MAIN LLA NO RETHEE, to quit Rangoon, and make Pegue his future residence, and the seat of provincial government of the thirty-two provinces of *Henzawuddy*.

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These judicious measures have so far succeeded, that a new town has been built within the site of the ancient city; but Rangoon possesses so many superior advantages, and holds out such inducements to those who wish to dwell in a commercial town, that adventurers do not resort in any considerable numbers to the new colony. The former inhabitants are now nearly extinct, and their families and descendants settled in the provinces of *Tanghoo*, *Martaban*, and *Talowmeou*; and many live under the protection of the *Siamese*. There is little doubt, however, that the restoration of their favourite temple of worship, and the security held out to them, will, in the end, accomplish the wise and humane intentions of the *Birman* Monarch.

Pegue, in its renovated state, seems to be built on the plan of the former city. It is a square, each side measuring about half a mile. It is fenced round by a stockade, from ten to twelve feet high. There is one main street, running east and west, which is intersected at right angles by two smaller streets, not yet finished. At each extremity of the principal street there is a gate in the stockade, which is shut early in the evening. After that hour, entrance during the night is confined to a wicket. Each of these gates is defended by a sorry piece of ordnance, and a few musqueteers, who never post centinels, and are usually asleep. There are also two other gates on the north and south sides of the stockade.

The streets of Pegue are spacious, as are the streets in all *Birman* towns that I have seen. The road is carefully made with brick, which the ruins of the old town plentifully supply. On each side of the way there is a drain, that serves to carry off the water. The houses even of the meanest peasants of Pegue, and throughout all the *Birman* empire, possess an advantage over Indian dwellings, by being raised from the ground either on wooden posts, or bamboos, according to the size of the building. The dwellings of the *Rabaans*, or priests, and higher ranks of people, are usually elevated eight or ten feet; those of the lower classes from two to four.

The houses of the inhabitants of Pegue are far from commodious, agreeably to European notions of accommodation; but I think they are at least as much so as the houses of Indian towns. There are no brick buildings either in Pegue or Rangoon, except such as belong to the King, or are dedicated to GAUDMA. The King has prohibited the use of brick or stone in private buildings, from the apprehension, I was informed, that, if people got leave to build brick houses, they might erect brick fortifications, dangerous to the security of the state. The houses, therefore,

therefore, are all made of mats or sheathing-boards, supported on bamboos or posts. Being composed of such combustible materials, the inhabitants are under continual dread of fire, against which they take every precaution. The roofs are lightly covered; and at each door stands a long bamboo, with a hook at the end, to pull down the thatch: also another pole, with a grating of split bamboo at the extremity, about three feet square, to suppress flame by pressure. Almost every house has earthen pots of water on the roof. And there is a particular class * of people, whose business it is to prevent and extinguish fires.

The *Mayoon's* habitation is a good building, in comparison with all the other houses of Pegue. It is raised on posts, ten feet high. There seems, from an outside view, to be many apartments, besides the hall in which he gives audience. It is in the centre of a spacious court, surrounded by a high fence of bamboo mats. There is in the hall, at the upper end, a small elevation in the floor, on which the Viceroy sits when he receives visits in form.

The object in Pegue that most attracts and most merits notice, is, the Temple of SHOEMADOO †, or the *Golden Supreme*. This extraordinary edifice is built on a double terrace, one raised upon another. The lower and greater terrace is about ten feet above the natural level of the ground. It is quadrangular. The upper and lesser terrace is of a like shape, raised about twenty feet above the lower terrace, or thirty above the level of the country. I judged a side of the lower terrace to be 1391 feet, of the upper 684. The walls that sustained

* These people are called *Pagwaat*. They are slaves of the government; men who have been found guilty of theft, and through mercy have had their lives spared. They are distinguished by a black circle on each cheek, caused by punctuation: also by having on their breasts, in BIRMAN characters, the word *Thief*; and the name of the article stolen; as on one (that I asked an explanation of) *Putchoo Khoo*, or *Cloth Thief*.

These men patrol the streets at night, to put out fires and lights after a certain hour. They act as constables, and are the public executioners.

† *Shoe* is the *Birman* word for *golden*; and there can be little doubt that *Madoo* is a corruption of the *Hindu* MAHA DEVA or DEO. I could not learn from the *Birmans* the origin or etymology of the term; but it was explained to me as importing a *promontory that overlooked land and water*. *Praw* signifies *Lord*, and is always annexed to the name of a sacred building. It is likewise a sovereign and sacerdotal title; and frequently used by an inferior when addressing his superior. The analogy between the *Birmans* and the ancient *Egyptians*, in the application of this term, as well as in many other instances, is highly deserving notice.

Phra was the proper name under which the *Egyptians* first adored the Sun, before it received the allegorical appellation of *Osiris*, or author of Time. They likewise conferred it on their kings and priests. In the first book of MOSES, chap. xli. PHARAOH gives "JOSEPH to wife the daughter of *Potiphera*, or the Priest of ON." In the book of Jeremiah, a king of Egypt is styled, "PHARAOH OPHRA." And it is not a very improbable conjecture, that the title PHARAOH, given to successive kings of *Egypt*, is a corruption of the word *Phra*, or *Praw*; in its original sense signifying the *Sun*, and applied to the sovereign and the priesthood, as the representatives on earth of that splendid luminary.

the sides of the terraces, both upper and lower, are in a state of ruin. They were formerly covered with plaister, wrought into various figures. The area of the lower is strewn with the fragments of small decayed buildings; but the upper is kept free from filth, and in tolerably good order. There is a strong presumption that the fortress is coeval with this building; as the earth of which the terraces are composed, appears to have been taken from the ditch; there being no other excavation in the city, or its neighbourhood, that could have afforded a tenth part of the quantity.

These terraces are ascended by flights of stone steps, broken and neglected. On each side are dwellings of the *Rabaans*, or priests, raised on timbers four or five feet from the ground. Their houses consist only of a single hall. The wooden pillars that support them are turned with neatness. The roof is of tile, and the sides of sheathing-boards. There are a number of bare benches in every house, on which the *Rabaans* sleep. We saw no furniture.

SHOEMADOO is a pyramid, composed of brick and plaister, with fine shell mortar, without excavation or aperture of any sort; octagonal at the base, and spiral at top. Each side of the base measures 162 feet. This immense breadth diminishes abruptly; and a similar building has not unaptly been compared in shape to a large speaking trumpet*.

Six feet from the ground there is a wide ledge, which surrounds the base of the building; on the plane of which are fifty-seven small spires, of equal size, and equidistant. One of them measured twenty-seven feet in height, and forty in circumference at the bottom. On a higher ledge there is another row, consisting of fifty-three spires, of similar shape and measurement. A great variety of mouldings encircles the building; and ornaments, somewhat resembling the fleur de lys, surround what may be called the base of the spire. Circular mouldings likewise gird this part to a considerable height; above which there are ornaments in stucco, not unlike the leaves of a *Corinthian* capital; and the whole is crowned by a *tee*, or umbrella of open iron-work, from which rises an iron rod, with a gilded penant.

The *tee*, or umbrella, is to be seen on every sacred building in repair, that is of a spiral form. The raising and consecration of this last and indispensable appendage, is an act of high religious solemnity, and a season of festivity and relaxation.

The present King bestowed the *tee* that covers SHOEMADOO. It was made at the capital; and many of the principal nobility came down from *Ummerapoora* to be present at the ceremony of putting it on.

* Vide Mr. HUNTER's Account of Pegue.

The circumference of the *tee* is fifty-six feet. It rests on an iron axis, fixed in the building, and is further secured by large chains, strongly rivetted to the spire.

Round the lower rim of the umbrella are appended a number of bells, of different sizes, which, agitated by the wind, make a continual jingling.

The *tee* is gilt; and it is said to be the intention of the King to gild the whole of the spire. All the lesser pagodas are ornamented with proportionable umbrellas, of similar workmanship, which are likewise encircled by small bells.

The extreme height of the building, from the level of the country, is 361 feet; and above the interior terrace, 331 feet. On the south-east angle of the upper terrace there are two handsome saloons, or *keouns*, lately erected. The roof is composed of different stages, supported by pillars. I judged the length of each saloon to be about sixty feet, and the breadth thirty. The ceiling of one of them is already embellished with gold leaf, and the pillars lacquered; the other is not yet completed. They are made entirely of wood. The carving on the outside is very curious. We saw several unfinished figures, intended to be fixed on different parts of the building; some of them not ill shapen, and many exceedingly grotesque. Splendid images of GAUDMA (the *Birman* object of adoration) were preparing, which we understood were designed to occupy the inside of these *keouns*.

At each angle of the interior terrace is a pyramidal pagoda, sixty-seven feet in height, resembling, in miniature, the great pagoda. In front of the one in the south-west corner are four gigantic representations, in masonry, of PALLOO, or the *man-destroyer*, half beast, half human, seated on their hams, each with a large club on the right shoulder. The *Pundit* who accompanied me said, that they resembled the RAKUSS of the *Hindus*. They are guardians of the temple.

Nearly in the center of the east face of the area are two human figures in stucco, beneath a gilded umbrella. One standing, represents a man with a book before him, and a pen in his hand. He is called THAGIAMEE, the recorder of mortal merits, and mortal misdeeds. The other, a female figure kneeling, is MAHA SUMDERE, the protectress of the universe, as long as the universe is doomed to last: but when the time of general dissolution arrives, by her hand the world is to be overwhelmed, and destroyed everlastingly.

A small brick building, near the north-east angle, contains an upright marble slab, four feet high, and three feet wide, on which is a long and legible *Birman* inscription. I was told it was a recent account of the donations of pilgrims.

Along

Along the north face of the terrace there is a wooden shed, for the convenience of devotees who come from a distance to offer up their prayers at SHOEMADOO.

On the north side of the great pagoda are three large bells, of good workmanship, suspended near the ground, between pillars. Several deers' horns are strewed around. Those who come to pay their devotions, first take up one of the horns, and strike the bell three times, giving an alternate stroke to the ground. This act, I was told, is to announce to the spirit of GAUDMA, the approach of a suppliant. There are several low benches near the bottom of the pagoda, on which the person who comes to pray places his offering, which generally consists of boiled rice, a plate of sweetmeats, or cocoa-nut fried in oil. When it is given, the devotee cares not what becomes of it. The crows and *pariah* dogs commonly eat it up in the presence of the donor, who never attempts to prevent or molest the animals. I saw several plates of victuals devoured in this manner, and understood it was the case with all that were brought.

There are many small pagodas on the areas of both terraces, which are neglected, and suffered to fall into decay. Numberless images of GAUDMA lie indiscriminately scattered. A pious *Birman*, who purchases an idol, first procures the ceremony of consecration to be performed by the *Rabaans*, then takes his purchase to whatever sacred building is most convenient, and there places it either in the shelter of a *keoun*, or on the open ground before the temple: nor does he ever after seem to have any anxiety about its preservation, but leaves the divinity to shift for itself.

Some of those idols are made of alabaster, which is found in the neighbourhood of the capital of the *Birman* dominions, and admits of a very fine polish.

On both the terraces are a number of white cylindrical flags*, which are used by the *Rabaans* alone, and are considered as emblematic of purity and their sacred function. On the top of the staff there is commonly the figure of a *benza*, or goose, the symbol both of the *Birman* and *Pegue* nations.

From the upper ledge that furrounds the base of SHOEMADOO, the prospect of the country is extensive and picturesque; but it is a prospect of nature in her rudest state. There are few inhabitants, and scarcely any cultivation. The hills of *Martaban* rise to the eastward; and the *Sitang* river, winding along the plains, gives

* These flags are made of long stripes of white cloth, sewed together at the sides, and extended by hooks of thin bamboos.

here and there an interrupted view of its waters. To the north-north-west, above forty miles, are the *Galladzet* hills, whence the Pegue river takes its rise; hills remarkable only for the noisome effects of their atmosphere. In every other direction the eye looks over a boundless plain, chequered by a wild intermixture of wood and water.

Previous to my departure from Pegue, I paid a visit to the *Siredaw*, or superior *Rabaan*, of the country. His abode was situated in a shady grove of tamarind trees, about five miles south-east of the city. Every object seemed to correspond with the years and dignity of the possessor. The trees were lofty. A bamboo railing protected his dwelling from the attack of wild beasts. A neat reservoir contained clear water. A little garden gave him roots; and his retreat was well stocked with fruit-trees. A number of younger *Rabaans* lived with him, and administered to his wants with pious respect. Though extremely emaciated, he seemed lively, and in full possession of his mental faculties. He said his age was eighty-seven. The *Rabaans*, although supported by charity, never accept of money. I therefore presented this venerable prelate of the order with a piece of cloth, which was repaid by a grateful benediction. He told me that, in the convulsions of the Pegue empire, most of their valuable records had been destroyed; but it was traditionally believed, that the temple of SHOEMADOO was founded two thousand three hundred years ago, by two brothers, merchants, who came to Pegue from *Talowmeou*, one day's journey east of *Martaban*. These pious traders raised a pagoda of one *Birman* cubit, twenty inches and a half in height. SIGEAMEE, or the spirit that presides over the elements, and directs the thunder and lightning, in the space of one night, increased the size of the pagoda to two cubits. The merchants then added another cubit, which SIGEAMEE likewise doubled in the same short time. The building thus attained the magnitude of twelve cubits, when the merchants desisted. That the pagoda was afterwards gradually increased by successive monarchs of Pegue; the registers of whose names, and the amount of their contributions, had been lost in the general ruin: nor could he inform me of any authentic archives that survived the wreck.

Of the deficiency of the foregoing account of the city of Pegue, and the temple of SHOEMADOO, I am fully sensible. Authentic documents were not to be procured; and the stories related, in answer to oral enquiries, were too extravagant to merit attention. That Pegue was once a great and populous city, the ruins of buildings within the walls, and the vestiges of its extensive suburbs, still extant, sufficiently,

sufficiently declare. Of the antiquity of SHOEMADOO there is no reason to doubt : and as a pile of building, singular in its construction, and extraordinary for its magnitude, it may justly be numbered amongst the most curious specimens of oriental architecture.

VIII.

DESCRIPTION OF THE TREE CALLED BY THE BIRMAS LAUNZAN.

By FRANCIS BUCHANAN, Esq. M. D.

BEFORE my setting out to accompany the late deputation to the court of Ava, I received some seeds, which had been sent to SIR JOHN SHORE from Pegue. It was conceived that they might be usefully employed to yield oil, with which they seemed to abound : I was therefore particular in making my inquiries after the plant producing them. I soon learned that they were produced only in the upper provinces of the kingdom ; and, on my arrival there, I found myself still at a distance from the tree on which they grow. It is said only to be found on the mountains ; and these I had no where an opportunity of examining. With some difficulty, however, I procured, whilst at Amerapoor, some young shoots, with abundance of the flowers, and several young plants in a growing state : and while at Pagam, on our return, I procured many branches with the young fruit. Unluckily, all the young plants died before I reached Bengal ; otherwise, I believe, they might have been an acquisition of some value. The tree is said to be very lofty ; and, from what I saw, must produce immense quantities of the fruit ; as may readily be conceived from looking at the drawings ; where it must be observed, that the fruit-bearing branch has had by far the greatest part of its produce shaken off by the carriage. In times of plenty, little use is made of the fruit, except for yielding oil, as had been expected ; and besides, a small quantity of the seeds are gathered, and sent to all parts of the empire, where they are used for nearly the same purposes that almonds are amongst us ; but the demand in this way cannot be considerable.

It is in times of scarcity that the fruit becomes valuable. It is said, when ripe,

to

to be red; and, like a peach, consists of a succulent outer flesh, containing a hard shell, in which there is a single seed. The outer fleshy part is said to be agreeably acid, and safe to eat. When that is removed, the shells, by a slight beating, split in two, and are thus easily separated from the kernel. These kernels taste very much like a walnut; but are rather softer, and more oily. As they can, at those places where the trees grow, be afforded very cheap, in times of scarcity they are carefully gathered; and, when boiled with a little rice or *Indian* corn, furnish a great part of the food of the lower class of the natives.

I shall now add such a botanical description of the plant as will enable it to be reduced into the vegetable system; although not in every respect complete, owing to my not having seen the tree or the ripe fruit. I believe it will be found to constitute a new genus; but I do not venture to give it a name, till the *European* botanists have ascertained, whether or not it be reducible to any known genus of plants. In the botanical description I use the *Latin* language; as I am not yet sufficiently acquainted with the technical terms introduced into the *English* by the *Litchfield* Society, to use them with facility.

Character Essentialis. Cal. 1 phyll, petala 5, receptaculo inserta, stam. 10, receptaculo inserta. Nect. maximum, orbiculatum, 10 sulcum, germen involvens. Styli 5, conniventes. Drupa monosperma, nuce bivalvi. Habitat in montosis regni Barmanorum.

Arbor elata ramis fuscis nudis; ramulis foliosis. Ramuli floriferi glabri, rubicundi, viride-punctati; fructiferi rimosi.

Folia approximata, alterna, petiolata, oblonga, basi attenuata, integra, integerima, retusa, glabra, venis reticulata.

Fulcra, petiolus anceps, acutangulus, brevissimus, glaber. Stipulae, pubes, arma cirrhi nulla.

Inflorescentia. Paniculi axillares ad apices ramorum congesti, laxi, nudi, foliis longiores, ramosissimi; ramis teretibus, horizontalibus, sparsis. Flores parvi, albidii, plurimi, pedicellati, sparsi. Racemi fructiferi penduli, foliis multo longiores. Fructus rubri, acescenti-dulces.

Cal. perianthum proprium monophyllum, concavum, corollam brevius, quinquefidum: laciniis obtusis. Lacinae calycis aliquando tres, saepius quatuor.

Cor. petala quinque, rarius sex, receptaculo inserta, sessilia, sublinearia, obtusa, revoluta.

Nect.

Nect. Maximum, in centro floris orbiculatum, depressum, decem-striatum, germen involvens.

Stam. Filamenta decem, subulata, erecta, petalis breviora, receptaculo inserta, antheræ parvæ, ovatæ.

Pist. Germen superum. Nectario tectum. Styli quinque subulati, erecti, conniventes, longitudine staminum, stigmata obtusa.

Per. Drupa compressa, obovata, obtusa, obtusocarinata, unilocularis.

Sem. Nux unilocularis, compressa, sub-bivalvis, dehiscens; semen solitarium, hinc acutum, inde crassum carinatum.

Affinis, ordine naturali, terminaliis proximus habitu, generi a Roxburgio *tsaroo mamaday* dicto, sed nectaria diversissima, characterem habet non nihil similem generi altero, a Roxburgio *chitraca* dicto, sed habitus diversi; singularis est drupa monosperma cum stylis quinque; simile aliquod tamen occurrit in genere Roxburgiano *odina*.

A *Saponaria* diversum genus, drupâ uniloculari.

IX.

SPECIMEN OF THE LANGUAGE OF THE PEOPLE INHABITING THE HILLS IN THE VICINITY OF BHAGULPOOR.

Communicated in a Letter to the Secretary,

By Major R. E. ROBERTS.

PERCEIVING that the very full and satisfactory account of the people inhabiting the hills in the vicinity of *Bhagulpoor*, by Lieutenant SHAW, in the Fourth Volume of the *Asiatick Researches*, is unaccompanied by any specimen of their language, should the following one be acceptable as a supplement to that account, or you deem it deserving the notice of the Society, I shall be obliged by your laying it before them, as I can rely on the correctness of it.

Mr. SHAW having observed that these people have no writing character, I just beg

beg leave to add, that, when I was on duty at *Rajahmahl*, several years ago, a hill chief sent a verbal message to the commanding officer, expressing a wish to wait upon him. Being desired to appoint a day for that purpose, he transmitted a straw with four knots upon it, which was explained by the messenger who brought it to intimate, that his master would come on the fourth day.

The Head	Cook.	Cholick	Coochoohoogee.
Eye-brow	Cunmudbâ.	A Tiger	Toot.
Nose	Moëë.	Dog	Alah.
Throat	Cuffer.	An Ant	Choobah.
Armpit	Buddee puckda.	A Kite	Chunneeâdee.
Blood	Keefs.	Paroquet	Apud.
A Finger	Angillee.	Fly	Teelcur.
The Breast	Bookah.	Bee	Ook.
Belly	Coochah.	Heaver	Surruncuffâ.
Loins	Cudmah.	Star	Badekah.
Back	Cookah.	Cloud	Badelee.
A Vein	Nâroo.	Cow	Ooee.
Toe	Cuddah Angillee.	Jackal	Cheecâloo.
Hair	Tullee.	Cat	Beerkah.
An Eye	Cun.	Cock	Noogeer.
Ear	Kydoob.	Crow	Câcah.
The Countenance	Trefoo.	Dove	Poorah.
Beard	Pâchoodee.	Pigeon	Cooteerah.
Throat	Tood.	Scorpion	Teelah.
Shoulder	Dupna.	Buffalo	Mung.
A Nail (of Finger)	Ooruk.	Hog	Keefs.
A Lip	Boocootooda.	Deer	Chuttedah.
Navel	Cood.	Hen	Dooteegeer.
Buttock	Moodoocudmullâ.	Bat	Cheedgoo.
Liver	Cuckâlee.	Snake	Neer.
The Foot	Chupta.	Fish	Meen.
A Bone	Coochul.	Male, masculine	Peechâlah.
Forehead	Neepee.	Sunshine	Beer.
The Eyelash	Cunmeer.	Moonshine	Beelah.
Cheek	Cullâ.	Lightning	Chûdkah.
Chin	Kyboo.	Light	Abublee.
Tooth	Pul.	Earth	Kycul.
An Arm	Tât buddee.	A Stone	Châchah.
Breast of a Woman	Doodah.	An Arrow	Châr.
Heel	Teeknâ.	A Bone	Eedut.
Flesh	Maak.	Fire	Chuchah.
A Fever	Meed.	Water	Oom.
Headache	Cooknogee.	Grass	Doobah.

Food	Jacoo.	To weep	Boolket.
Bread	Putteeâ.	To pull, draw	Bundra.
Cloth	Durjâ.	A River	Abeen.
Black	Fudcooroa.	Salt	Beek.
White	Cheen burroo.	A Cup	Coree
Red	Kyfoo.	Below, under	Tuttâ.
Yellow	Balcoo.	A Tent Rope	Jumkâ.
Rice	Teekeel.	High	Arkâ.
Oil	Heescun.	A Door	Dowaree.
A Turband	Doomce, Cocudee.	A Flower	Kâdah.
A Tree	Mun.	Game (Beasts of)	Cubbree.
Linen Cloth	Lookâ.	An Ideot	Bootah.
Cold	Kaidah.	The World	Oorahâ.
Heat	Oomee.	A Mat	Tâlee.
A House	Adâ.	Before	Moodâhee.
North	Colah.	Why	Pundreek.
South	Purrubmoha.	Me, to me	Aykee.
West	Beerhotroo.	This	Bhee.
A Peacock	Choobah.	Him	Naheen.
Sweet	Ameebade.	They	Nuckeed.
Bitter	Câdkah.	Ignorant	Oo cullee mulla.
Sour	Seetee.	Justice	Muzcoor.
Prayer, worship	Aydeeootee.	Which	Chuchee.
Hindustan	Coler.	A Liar	Puffeereec.
Wheat	Gyhoom.	A Rope, Cord	Meer.
To sleep	Cooda.	A Hill	Tookah.
To beget, procreate	Keena.	Sick	Chootah.
To sleep	Cunderco.	A Sheet	Chuppoedah.
To go	Aycoocoo.	Left (Hand or Side)	Akdo.
To tear	Afeehee.	Crooked	Deeza.
To squeeze, press out	Ayrcoo.	Sand	Bâlah.
To grind	Tudyecâ.	Accusation, Complaint	Mâfee.
To know, understand	Booje een.	A Garment, Vest	Joolee.
To rub	Mâleeâ.	Phyick	Bhudder.
To break	Turrâ.	A Sash	Sujar.
To sound	Ahootee.	A Mill	Mookah.
To laugh	Alkee.		

X.

AN ACCOUNT OF THE DISCOVERY OF TWO URNS IN THE VICINITY OF BENARES.

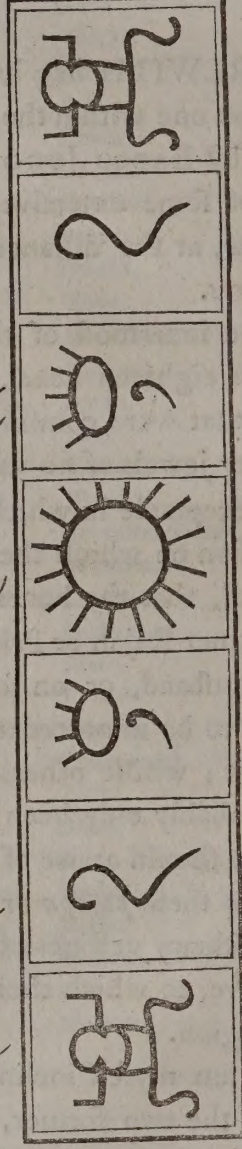
By JONATHAN DUNCAN, Esq.

I HEREWITH beg leave to deliver to the Society a Stone and a Marble Vessel, found the one within the other, in the month of January, 1794, by the people employed by BABOO JUGGUT SING in digging for stones from the subterraneous materials of some extensive and ancient buildings in the vicinity of a temple called *Sarnauth*, at the distance of about four miles to the northward of the present city of *Benares*.

In the innermost of these cases (which were discovered after digging to the depth of eighteen *bauts*, or cubits, under the surface) were found a few human bones, that were committed to the *Ganges*, and some decayed pearls, gold leaves, and other jewels of no value, which cannot be better disposed of than by continuing in the receptacle in which they must have so long remained, and been placed upon an occasion on which there are several opinions among the natives in that district. The first, that the bones found along with them, may be those of the consort of some former Rajah or Prince, who having devoted herself to the flames on the death of her husband, or on some other emergency, her relations may have made (as is said not to be unprecedented) this deposit of her remains as a permanent place of lodgment; whilst others have suggested, that the remains of the deceased may have probably only been thus temporarily disposed of, till a proper time or opportunity should arrive of committing them to the *Ganges*, as is usually observed in respect to these *pushpa* or flowers; a term by which the *Hindus* affect to distinguish those residuary vestiges of their friends dying natural deaths, that are not consumed by the fire, to which their corpses are generally exposed, according to the tenets of their religion.

But I am myself inclined to give the preference to a conclusion differing from either of the two former, viz. that the bones found in these urns must belong to one of the worshippers of BUDDHA, a set of *Indian* heretics, who, having no reverence for the *Ganges*, used to deposit their remains in the earth, instead of committing them to that river; a surmise that seems strongly corroborated by the circumstance of a statue or idol of BUDDHA having been found in the same place under ground, and on the same occasion with the discovery of the urns in question, on which was an inscription, as per the accompanying copy of the original, ascertaining that a temple had between 7 or 800 years ago been constructed there for the worship of that deity.

नमोबुद्धाय वाराणसीसरस्यं गुरीः श्रीधामशशिपादाव्रम
 आराधनमितनृपति शिरोरुहैः शैवलाकीर्णम् १
 भूपालचित्रय ह्यादि कीर्तिरुत्तराचयः
 जौट्टाधिपामह्वीपालः काश्याश्रीमानकारपत् २
 महनी कुत पांडित्यो बोद्धारावनिवर्त्तिनौ
 यौ धम्मं राजिकं सांगं धम्मं चक्र पुनन्नवम् ३
 कुत वं तौ च नवीन मेष्ठमहास्थानशैलराजकुटीम्
 एनां श्री स्थिरपालो वमं न पालेनुजः श्रीमान् ४
 सम्वत् १० ८३ पौष दिन १९



सधम्मं हेतु प्रकरो हेतुंतेषां तथाफले सवद्वर
 तेषां च यमविरोधावंतादी महाश्रमणाः

XI.

ACCOUNT OF SOME ANCIENT INSCRIPTIONS.

THE president lays before the Society a Fac Simile of some Ancient Inscriptions, received from SIR CHARLES WARE MALLET. They were taken by MR. WALES, a very ingenious artist, who has employed himself in making designs of the excavations and sculptures at *Ellura*, and other parts on the western side of *India*. To the ingenuity of LIEUTENANT WILFORD, the Society is indebted for an explanation of the Inscriptions. They are, as he observes, of little importance; but the publication of them may assist the labours of others in decyphering more interesting manuscripts or inscriptions. The following Extract of a Letter from LIEUTENANT WILFORD, containing his Translation of the Inscriptions, accompanies them.

I HAVE the honour to return to you the fac simile of the several inscriptions, with an explanation of them. I despaired at first of ever being able to decypher them; for as there are no ancient inscriptions in this part of *India*, we never had, of course, any opportunity to try our skill, and improve our talents, in the art of decyphering. However, after many fruitless attempts on our part, we were so fortunate as to find at last an ancient sage, who gave us the key, and produced a book in *Sanscrit*, containing a great many ancient alphabets formerly in use in different parts of *India*. This was really a fortunate discovery, which hereafter may be of great service to us. But let us proceed.

Number II. and VI. are pure *Sanscrit*; and the character, though uncouth, is *Sanscrit* also.

The other numbers, viz. I. III. IV. and V. are written in an ancient vernacular dialect; and the characters, though very different from those now in use, are nevertheless derived from the original or primæval *Sanscrit*, for the elements are the same.

I have exhibited these numbers in one sheet. The Inscriptions are first written in their original dialect, but in *Sanscrit* characters. To this is annexed a translation in *Sanscrit*; and both the original dialect and the *Sanscrit* translation are exhibited in *English* characters.

The

The numbers I. III. IV. and V. relate to the wanderings of YUDISHTIRA and the PANDOVAS through forests and uninhabited places. They were precluded, by agreement, from conversing with mankind; but their friends and relations, VIDURA and VYA'SA, contrived to convey to them such intelligence and information as they deemed necessary for their safety. This they did by writing short and obscure sentences on rocks or stones in the wilderness, and in characters previously agreed upon betwixt them. VYA'SA is the supposed author of the *Purānas*.

No. I.

Consists of four distinct parts, which are to be read separately. In the first part, (I,) either VIDURA or VYA'SA informs YUDISHTIRA of the hostile intentions of DURYODHEN.

“ From what I have seen of him (DURYODHEN,) and after having fully considered (the whole tenor of his conduct,) I am satisfied that he is a wicked man. “ Keep thyself concealed, O chief of the illustrious!”

In the 2d part of No. I.

“ Having first broken the stone (that closes thy cave) come here secretly, old man, that thou mayest obtain the object of thy desire. Thy sufferings vex me “ fore.”

In the 3d part of No. I.

“ O, most unfortunate, the *wicked* is come.”

In the 4th part of No. I.

YUDISHTIRA and his followers being exhausted with their sufferings, made overtures of peace through VIDURA and VYA'SA. They had at first some hope of success, when suddenly an end was put to the negotiation, and affairs took another turn. This piece of intelligence they conveyed to YUDISHTIRA in the following manner :

4th. “ Another word.”

This expression, is an adverbial form, is still in use to express the same thing.

No. III.

“ O, worthy man, O, *Hara-kara*,” (*Hara-kara*, the name of MAHADE'VA, twice expressed, is an exclamation used by people in great distress,) “ ascend into “ thy cave—Hence send letters—But into thy cave go secretly.”

No. IV.

“ Thou wilt soon perceive that they are leagued together, and that their bellies “ (appetites)

“ (appetites) are the only rule of their conduct. Decline their friendship—See
“ the door of yon cave—Break it open, (and conceal thyself therein.)”

No. V.

“ Go into the town immediately—But do not mix with them—Keep thyself
“ separate as the lotos (from the waters in which it floats.)—Get into the house
“ of a certain ploughman, and first remain concealed there; but afterwards keep
“ thyself in readiness.”

The two following numbers allude to the worship of BUDDHA.

No. II.

“ Here is the statute of SA'CYA-UDA'RACA, (now a form of BUDDHA,) but
who was before a *Brabmacāri*, called SRI'-SOHILA.”

No. VI.

“ SA'CYA-PA'DA'MRATA made this statute.”

My learned friends here insist that these Inscriptions were really written by the friends of YUDISHTIRA. I doubt this very much. These Inscriptions certainly convey little or no information to us: still our having been able to decypher them is a great point in my opinion, as it may hereafter lead to further discoveries, that may ultimately crown our labours with success. Indeed, your sending them to me has really been the occasion of my discovering the above-mentioned Book, which I conceive to be a most fortunate circumstance.

F. WILFORD.

No. I.

बहलाऊहा	वरपुपुतवृद्ध	कृद्रुतरव	इतरया
पकठकठरवध	पयेखट्टठठ	इपैपे	वुन
गुप्तसुपुथितप	पैपे		

<i>Bhalā ūhā</i>	<i>Varappu pūta vradd'ha</i>	<i>Cra'drata c'ha-</i>	<i>Itarathā</i>
<i>pacot'ha vra'dhara bud'ba</i>	<i>pattharc'hatū'ha t'ha</i>	<i>i paipē</i>	<i>vrattam</i>
<i>gupta suputhitapa</i>	<i>paipē</i>		

The same in Sanscrit.

बहुलातलिप्रकटवृत्तः	वरप्राप्तुमःवृद्ध	ककुरन	अयथा
मूर्खःसुप्रथितप	पसरैखंडुयिवाह	खलःप्राप्त	वृत्तांतं
	प्राप्त		

<i>Bahulā tarcanā prakatā vratah</i>	<i>Varam prāptum guptah vraddha</i>	<i>Caśhtarata</i>	<i>Anyathā</i>
<i>mūrc'haś c'hagnah suprathitapa</i>	<i>prasaramc'han'dayiravā ha prāpa</i>	<i>c'halah prāptah</i>	<i>vrattāntam</i>

No. III.

रुचिरहरहर Ruchara Hara-hara

गुहंरुहलेखानि aruruha lêhaé

प्रेषयगुहः गच्छ rurui guha it.

The same in Sanscrit.

रुचिरहरहर Ruchira Hara-hara

अरुहलेखानि guhâm ruhya lèc'hyâni

प्रेषयगुहः गच्छ prêshaya gu'dhad gach'ha.

No. IV.

कालजटस्सैषहृद्गुहैमेहरउरुषगुहसतठ

Cala-i jat'hé ruhahai paha-i thé snéharah arurê shaguhadara latâ.

The same in Sanscrit.

जानिहिररुहः प्रहितं गुहं हन्ति हं आहारतद्गुहद्वारं लिख

Jânihi jat'harê ru'dhâh prahitam ich'hanti snéham âhara êtadguhâ dwâram lic'ha.

No. V.

ओब्जेद्विष्टोशहृदुहहृदुह

हृदुहहृदुहहृदुहहृदुह

Objé-i t'ha-i shégu fâhru d'hut'hara ruha hala ruha
hafutê hajé ru-i-ê gud'ha te i raru haharacru.

The same in Sanscrit.

अब्रह्मविष्टोशहृदुहहृदुह

आवसथेअसाविश्रुतमः तिष्ठपश्चादुद्योगं कुरु

Abjaiva tishtha fighram grâmam jhutiti pravishalad'hara
âvasathê adyâpi gatwâ guptah tijhta pas'chât udhyogam curu.

Pure Sanscrit.

No. II.

श्रीमोहिनप्रसृ श्रीशिलाब्रह्म

चारिणः शक्राकुरु chârîhnah Sacjaruda-

रकप्रतिमेयं raca pratiméyam.

Pure Sanscrit.

No. VI.

शक्रपादामृतकृता प्रतिमा ॥

Sâcya Pâdâmrata cratâ pratimâ.

No. I. From Verool or Ellora.

ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय

ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय

No. II. Verool or Ellora.

ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय

No. III. Ekvira or Jebire.

ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय

XII.

OBSERVATIONS ON THE ALPHABETICAL SYSTEM OF THE
LANGUAGE OF AWĀ AND RĂC'HAIN.**By Captain JOHN TOWERS.*

THE annexed *Plate* † is a specimen of the Alphabet of the Language of *Awā* and *Răc'hain*, agreeably to the Arrangement adopted by the *Brăimmas* and *Mără-măs*, or Natives of those Kingdoms.

To avoid tedious and perplexing reference, it was thought advisable to place under each symbol its characteristic representative in *Roman* letters. In doing this, more than common attention has been paid to preserve the notation laid down in the elegant and perspicuous “System and Dissertation on the Orthography of *Asiatick* Words in *Roman* Letters,” commencing the first Volume of the *Researches* of the Society; at least, as far as its typical arrangement corresponded with the system under discussion; and where a variation rendered it necessary, new combinations or symbols have been introduced, and observations subjoined for their elucidation.

The abecedary rules, as taught by the natives, are, in their aggregate capacity, called *Sănbun*, or, *The System of Instruction*. They are classed under three distinct heads; and these again divided into thirty subordinate divisions, by the inflection of the primary letters, or alphabet properly so called, with the three classes of vowels *ărwi*, *ăsăitne*, and *ăsăitcri*, and four other marks. The instruction commences, however, with eighteen sounds, to prepare the pupil, as it is said, for the greater difficulties that are to follow. These sounds are included in what is taught subsequently, though ten of their symbols are not, which are therefore subjoined in the annexed Plate.

I.

Of the several series as they occur in the *Plate*, the first is *căgric'be*, or the *alphabet*; respecting which there is little to observe. In certain cases, to facilitate utterance, *c* is permuted with *g*, *ch* with *j*; the *second d* with the *second t*, *p* with *b*, and con-

* *Awa* and *Aracan*.† *Plate I.*

verfely. Of thofe founds that have more than one fymbol, the *firft* *c'b*, *cb'b*, *l*; *fecond* *t*, *d*, *n*; and *third* *t'b*, are in general ufe; alfo the *fecond* *p'b*; except in thofe inftances where it does not affociate with the *four marks* that will appear under the following head.

II.

Thefe are the *four marks* alluded to above. Their names, as they occur in the *Plate*, are *äpān*, *äräit*, *hñäch'bwe*, *hmäch'bwe*, &c. according to the letter it is affociated with, and *wäch'bwe*.

äpān.

The mark of this fymbol is *y*; though it might more properly and fometimes more conveniently, be marked by our third vowel, commencing a diphthong. The letters to which it is affixed are *c*, *c'b*, (1,*) *g*, *t*, (2,) *p*, *p'b*, (1,) *b*, *m*, *l*, (1,) *s*. To this laft it gives nearly the found of our *fb*; which notation it is neceffary to preferve, though probably not conformable to the ftrict rules of analogy. Poffibly the constituent parts of this found are the *palatial fibilant*, and *i*, coalefcng with a following vowel.

Aräri.

This mark is typified by *r*, and is always prefixed to the letters with which it affociates. Thefe are *c*, *c'b*, (1,) *g*, *n*, *cb'b*, (1;) *t*, (2;) *p*, *p'b*, (1;) *b*, *m*. With *cb'b* it forms a very harfh combination. But it is to be obferved, that it is the nature of this, as well as of all the marks, either feparately, or in their feveral combinations, to coalefce into one found with the affociated letter as nearly as the organs of articulation will admit. Its name *äräit* designates its natural form, meaning *erect* or *upright*.

Hmäch'bwe.

This extraordinary mark forms a new clafs of aspirates. Its name fignifies *fufpended*, from its fituation with refpect to the letter. The letters under which it is placed, are *n*, *ny*, *n*, (2;) *m*, *r*, *l*, (1;) *w*, *s*; before the *firft feven* of which its type is *b*. † *s* it hardens into *z*, the appropriate fymbol; or adds a fyllable to the inherent vowel, as *sämi*, a daughter, which may be either written with the mark

* The figures refer to the archetype in the *Plate*.

† The aspirate fo evidently precedes the letter in pronunciation, that, however inclination may lead to make the fymbol follow the letter, as is ufual in the other aspirates, in this inftance it cannot be done without an offensive violation of all analogy.

before us, or by *m*. * In the introductory part to *the system*, † it says, 'when the breath is obstructed by the pressure of the tongue (against the roots of the upper teeth, or probably against the palate) and forced between the teeth on either side of it, a liquid is formed peculiar to the *British* dialect of the *Celtick*.' We have found, however, this very sound in the mark before us when associated with *l*. If this be the sound represented by *ll*, as in the common surname *Lloyd*, the notation is but ill-suited to give an idea of its powers. In the combination of this mark with *āpān*, the only letters of association are *m* and *l*; and with *ārāit*, *n* and *m*; the symbol being formed, as in the original, of the component parts.

Wäch' bwe,

or the *suspended w*, is subtended to every letter, excepting that with which it corresponds in the alphabet. Its symbol is *w*, but subject to certain changes and suppression, the particular instances of which will appear when the vowels come to be treated of. This mark with the letter *b*, and the one immediately preceding with the letter *w*, form two combinations for the same sound; which is that of *wb* in the word *what*. In its associations with the other marks, it is governed by the same rules, and governs the same letters as already related under their separate and combined forms; with an exception, however, to its homogeneous character in the alphabet. With *āpān*, and *āpān bmäch' bwe* and *bläch' bwe*, we have the genuine sound of our *third* vowel forming a dipthong with the *fifth*; as *miuwă*, *bmiuwă*, *bliuwă*; the dipthong in these instances having precisely the same sound as in our word *lieu*: but, to preserve the notation here laid down, it must be typified by *y*, as *mywă*, *bmywă*, *blywă*; though it might more properly be represented by its constituent parts, as in the first example.

3, 4, 5,

These are the *three series of vowels* and *nasal marks*. The first is called *ārwi*, or *written*, simply; ‡ the second *āsāitne*, from the root *sāit*, to strike, (owing to the mark *āsāit* or *tānc' bwāin* that is struck in writing from the top of the *final* letter) and *ne*, small; and the third *āsāitcri*, from the same, and *cri*, large, great, in consequence of the proportion of the *first* series that is ingrafted into it being more than in the second.

* See Plate I. a.

† That commences the *first* volume of the *Researches* of the Society. For the sake of brevity it will be quoted throughout by this title.

‡ A letter is also said to be *ārwi* when uninflected.

The alphabet, in its several affociations with *āpān*, *ārāit*, *hāch'bwe*, and *wāch'bwe*, is, with only one exception, uniformly inflected throughout with the three series of vowels and nasal marks in regular rotation as they occur in the Plate. The instance to the contrary is *wāch'bwe*, which is altogether excluded in the alphabetical inflection of *āsāitcri*.

Except as a compound, the first vocal sound, as described in the system, has no place in the language before us. And there is yet a more striking singularity; which is, that every syllable is liquid, as it were, in its termination, each letter having its peculiar vowel or nasal mark subjoined, and in no instance coalescing with a following letter. But, to elucidate it by instances from our own language: were a native of *Ava* or *Aracan* merely acquainted with the Roman letters, and that such symbols represented such and such sounds, without knowing their rules of association, to read the words *book*, *boot*, *bull*, he would, agreeably to the powers he is taught to affix to the characters of his own language, pronounce them uniformly *bū*, or *būcā*, *būtā*, *būlā*, respectively. And he could not possibly do otherwise; the organs of articulation being inadequate to give utterance to the final letters according to the abrupt mode by which we are instructed to terminate those words. It need scarcely be observed, that hence each letter of the alphabet properly so called is used as a *syllabic initial*, and *never* as a *medial* or *final*, if we except the *nasals*. But here we only speak as far as pronunciation is concerned. There is reason to suppose that this singularity is not peculiar to the language we are treating of, but that the *Chinese* is formed upon the same principle; and probably some of the *African* dialects, if the analogy observable in the mode in which some natives of that quarter of the globe pronounce exotick words, and that of the *Mārāmās*, be sufficient ground for the suggestion. Whether the language of *Tibet* be not also, a member of the Society may be possibly able to determine. A native of *Aracan*, of naturally strong parts, and acute apprehension, with whom more than common pains have been taken for many months past to correct this defect, can scarcely now, with the most determined caution, articulate a word or syllable in *Hindustani* that has a *consonant* for a *final*, which frequently occasions very unpleasant, and sometimes ridiculous equivocations; and such is the force of habit even to making the most simple and easy things difficult, that as obvious as the *first elementary sound* appears to our comprehension, in an attempt that was made to teach him the *Nāgari* character, of which it is the *inherent* vowel, a number of days elapsed before

fore he could be brought to pronounce it, or even to form any idea of it, and then but a very imperfect one.

The *Plate*, as has been already observed, shews the alphabetical arrangement adopted by the natives. It will be more convenient, however, in treating of the three series of vowels and nasal marks, to throw them into classes; not only for the sake of perspicuity, but to avoid the irksome task of endless repetition.

ǎ, ā, ă, ă.

Our extended sound in *all*, and its contracted one in *fond*, are the basis of these four vowels. The first is pronounced with an accent peculiarly acute, by an inflection pretty far back of the tongue towards the palate, terminated by a kind of catch. It seems, however, to drop this distinction when followed by a grave accent, as *tārā*, just; a property that it would appear to possess in common with the other vowels distinguished by *acute* accents. It is inherent in every vowel, which may be the reason why it is placed last in the alphabet. The accent of the third is as remarkably *grave* as the other is *acute*; the second forming a medium between both, being our broad vowel in *all*; while the fourth is a guttural, analogous to the *Arabian kaf*; a suppression of the final utterance by which this is characterized as a consonant, being all that is necessary to form the sound before us.

i, ï, if.

The two first are accented in the same proportion as *ǎ* and *ă*, only with somewhat less force. The last is pronounced with an effort unusually harsh, by a strong inflection of the centre part of the tongue towards the palate. It seems to form a sound between the third vowel of the system and the actual articulation of its final letter, with which a foreigner, from mere oral knowledge, would most probably be induced to write it. No doubt, however, exists of its being a vowel, as attention to the mode in which a native pronounces it will fully demonstrate. The constituent sound in *ăpān* being our third vowel, in the inflection of those letters which take that mark with the three vowels before us, the variation in their associated and unassociated capacity is not easily discernible at first, but the difference is discovered in a day or two's practice by the assistance of a native.

u, ù, up.

The *grave* and *acute* accents of the last series characterize the two first of the present; the third being formed by a sudden reciprocation of the tongue with an appulse nearly of the lips, so as to convey an idea of fulness; or, if the expression may

may be allowed, a remarkable roundness of sound united to an uncommonly obtuse and abrupt termination, a peculiarity that marks those vowels of the series *āsāitne* and *āsāitcri*, that have *mutes* for the double letter. To this observation, however, there is an exception, which will be taken notice of in its proper place. The sound of the letter, when associated with *wäch'we*, and inflected by the two first of these vowels, remains the same as in its unassociated form: but the sigma in this case appears to be considered by the natives themselves as redundant, for it has hitherto only been met with in their abecedary system.

e, è.

The *first* is the *e* of the system. It has two types; the *seventh* of the first series, and the *last but one* of the second, and which are often abbreviated in writing, as in the verbal termination *ze* and *rwe* in the Plate. * By a strange irregularity, it is frequently written for *i*. The *second* is distinguished by the *grave* accent of the preceding series.

ad, ao; o, ò.

These vowels seem to be thus distinguished in the system: "By pursing up our lips in the least degree, we convert the simple element into another sound of the same nature with the *first* vowel, and easily confounded with it in a broad pronunciation: when this new sound is lengthened, it approaches very nearly to the *fourth* vowel, which we form by a bolder and stronger rotundity of the mouth." The two first may be often mistaken for the last; and, in some words, even for *ā* and *ā̃*, when inflecting the other letters with *wäch'we*, suspended. Like *u, ù*, the symbol in association with *wäch'we*, when inflected with these four vowels, is redundant.

āit, āip; aich, aiē.

Our diphthong in *ay*, or *joy*, which seems to be compounded of the broad vowel in *all*, or rather its correspondent short one, followed by the third, pronounced with the acute piercing accent described in treating of the first vowel, constitutes the sound of the two first of the present class of vowels; while the narrower sound in *eye* or *my*, with the obtuse abrupt termination mentioned under the third class of vowels, peculiarizes the two last. Taken in two's, as they appear above separated by the *semicolon*, their sounds are congenial. The two first form the exception taken notice of under the third class of vowels.

* Plate I. b.

auč.
The diphthong of the *first* and *fifth* vowels, already so fully described in the system, with the guttural termination of *áč*, is the sound of this vowel. It is sometimes abbreviated, by an elision of the *final* letter, when a point above is substituted in its room. *

The *nasals* are now only left for discussion; their peculiar vowels, as well as most of their nasal terminations, are to be found either in the system, or in the foregoing observations. The only thing therefore that remains, is arranging them into classes, and making a few trifling strictures.

āñ, ãñ.
No elucidation is here necessary. A species of abbreviation is sometimes observable in writing, when the double letter is placed above, instead of preceding, the following letter; as in the word *sāñbun*. †

in.
The sigma of this nasal in the original is not deduced analogously; its powers as a *syllabic initial* being that of the *dental* nasal, which sound is altogether excluded from this language as a *final*.

um, un.
The first of these is the regular symbol. Both sounds have but one type in the original, that has a *labial* appearing to be restricted to those instances where a labial follows; as *cumbup*, a *small eminence*, or rising ground. The nasal is frequently represented by a point above the letter.

āñ, ãñ, aim; aìn, aïñ.

The vowels of those nasals are in the same proportion as *ait*, *aich*, pronounced without the acute accent and abrupt termination by which they are respectively distinguished. The *obscure* nasal, ‡ formed by a slight inflection of the tongue towards the palate, with a trifling aid from the other organ, and which is so frequently to be met with in *Persian* and *Hindi* vocables, is the sound of the two first; the purpose of the third being seemingly to take their place when a *labial* follows,

* See Plate I. c.

† See Plate I. d.

‡ This nasal appears to hold a middle place between the *dental* and *guttural* nasals considered as *finals*; with the last of which it has but one common type in the *System*.

as in the word *cūimp'kā*, the *earth*.* It may be proper to observe here, that, like the *Hindi*, there is a slight nasality perceivable in the pronunciation of some words for which there is no symbol.

The diphthongs of *aiñ* and *aiñ* are permuted with *è* and *e* when inflecting *ny*, *y*, and the whole class of *āpāñ*; as *nyèn*, *nyen*, &c. and *aiñ*, when inflecting those letters with *wäch'bwe* suspended, and the class *āpāñ-wäch'bwe*; as *nywèn*, &c. This last nasal, by an anomaly not to be accounted for, is very often written for *e*.

aiñ, *aiñ*.

These compounds, formed of the first and fifth vowels and *guttural* nasal, close the three series of vowels and nasal marks, and with them the abecedary rules of this language.

There is, however, one observation more requisite, that could not have been introduced before without inconvenience, and which has therefore been reserved for this place. *ā* considered in its *syllabic initial* capacity, in its inflections of *ārwi* and *āsāitñe* with *wäch'bwe* suspended, is preceded by the fourth vowel, which, in this instance only, forms the symbol for *wäch'bwe*. The notation, therefore, for this deviation should be as follows: *oá*, *oa*, *oà*, *oat*, *oan*, *oàn*; *o'i*, *o'ì*; *o'e*, *o'è*; *o'ait*, *o'aitp*, *o'aitñ*, *o'aitñ*, *o'aitm*; *o'aich*, *o'aic*, *o'aìn*, *o'ain*. There is a farther deviation observable in the *first six*, the primary vowel being changed in the present case into the simple element, with which the incipient letter coalesces into a diphthong. In the rest, the initial vowel is articulated separately, as the comma between indicates. As for *u*, *ù*; *aò*, *ao*; *o*, *ò*; they retain the same sound, as has been already observed, either with or without *wäch'bwe*.

The following extract, taken from a book entitled *Mānu Sāingwāñ*, or the *Iron Ring of Mānu*, is offered merely as a specimen of the notation here laid down. It scarcely from its insignificance, deserves a translation: however, one is subjoined.

Māhāsāmādā māñ gri chāc' crāwālā sāñchyā praiñ brain tain daiñ piñ, tā tainchā hñaiñ chhauñ chye zād tächhe shaich'pā zād thāimmāsāit chāgā do go crā lo si lo mu'gā nāñ nāt cri gā hlyāñ a'hri zo myāc'hñā mu'rwe tāmūñ chā hmā myāc'hñā chāñ' dweñ pā nā chhe grao'rwe chāñ gre jwā colāt co sup sāñ'rwe sāñ shāñ jwā zād co phrāñ wāt chā tainchā chhāñ bri zād

* See Plate I. e; where it may be observed, the double letter has the one which should follow it subtended to it, and takes the vowel with which it is inflected, the distinguishing mark *asāt* being suppressed; an abbreviation very common in the vowels and nasal marks formed by double letters, particularly where the double letter is the same with that which immediately follows it.

*āmyo le' bā pārit' sāt do hnān che zoe chrāin rāin lyāt lāt up c̄yi hmā rādānā sumbā go hrī' cho'rwe brāimmā chā zaō nāit sigrā do go hrī' cho tain dā'n u hmā hlyān i tākhe shaich'pā thāimmāsāt tārā chāgā go māhāsāmādā mān gri ā crā pe lo zaō hnā. **

And MĀNU said, "O, mighty Prince, MĀHĀSĀMĀDĀ! if thou hast an inclination to hear and understand the words of the eighteen holy books which I brought from the gate of *Chāc' rāwālā*,† that enclose and form a barrier (to the earth) from thy palace; with thy face turned towards the east, cleaning thy teeth; washing thy eyes, mouth, cheeks, and ears, and wiping thy body and hands; and with a purified person, and having put on thy apparel and eat; and with the four friends‡ assembled, and forming a circle, closing thy hands, and making obeisance to the three inestimable jewels, § and prostrating thyself before *Brāimmā*, (and the two classes of beneficent Genii) *Nāit* and *Sigrā*, and making known to them thy grievances (having performed all these acts, then) will I present unto thee, illustrious monarch, *Māhāsāmādā*, and cause thee to hear the words of these eighteen books of Divine ordinances."

It is difficult to refrain observing, that the arrangement not only of the alphabet, but of the first series of vowels (eight of which have distinct characters|| which are not inflected) of the foregoing system, has a striking similitude to the *Devanagari*. In the alphabet, for instance, wherever it is defective, such deficiency is supplied by double, and, in one case, quadruple, symbols for the same sound; the first part being arranged into classes of four, each terminated by a nasal, forming together the number twenty-five; which exactly corresponds with the *Devanagari*.

From information, there appears to be scarcely room to doubt, but that the *Siamese* have one common language and religion with the *Brāimmās* and *Mārāmās*; and that in manners and customs the three nations form, as it were, one great family. How far these observations may extend to the inhabitants of *Asam*, we shall be able to judge on the publication of the history of that country.

It may be sufficient to observe in this place, that there is one sad impediment to attaining a critical knowledge of the idiom of the language of *Ava* and *Aracan*,

* For the original, see Plate II.

† Steep and stupendous mountains fabled to surround the earth, and beyond which no mortal can pass.

‡ MĀN; the two classes of supernatural beings, NĀIT and SIGRĀ, supposed to possess the peculiar guardianship of mankind; and *Brāimmā* through an attribute, it would seem, of ubiquity.

§ *Phurā*, *Tārā Sānc'hā*. The incarnate Deities, Divine Justice and the Priests.

|| See Plate I. Figure 6.

without which we may in vain expect from any pen accurate information respecting the religion, laws, manners, and customs, of these kingdoms; and that is, that there is no regular standard of orthography, or the smallest trace of grammatical enquiry to be found among the natives.* Much, however, may be done by patience and attention. The field is ample; and he who has leisure and perseverance to attain a just knowledge of its boundaries, will probably find his labours rewarded beyond his most sanguine expectation.

XIII.

SOME ACCOUNT OF THE ELASTIC GUM VINE OF PRINCE OF WALES'S ISLAND, AND OF EXPERIMENTS MADE ON THE MILKY JUICE WHICH IT PRODUCES: WITH HINTS RESPECTING THE USEFUL PURPOSES TO WHICH IT MAY BE APPLIED.

By JAMES HOWISON, Esq.

Communicated by JOHN FLEMING, Esq.

OUR first knowledge of the plant being a native of our *Island* arose from the following accident. In our excursions into the forests, it was found necessary to carry cutlasses for the purpose of clearing our way through the underwood. In one of those an elastic gum vine had been divided, the milk of which drying upon the blade, we were much surprized in finding it possess all the properties of the *American*

*Every writing that has hitherto come under observation, has been full of the grossest inaccuracies: even those stamped by the highest authority; such as official papers from the king of *Ava* to our government. How far the *Palit*, or sacred language, in which their religious ordinances are written, may be exempted from this remark, it is impossible to say. The *Priests* are almost the only people conversant in it, and few even among them are celebrated for the accuracy and extent of their knowledge. Between *Rámu* and *Islámabád*, only one person has been heard of, and to him access has not hitherto been obtainable. Enquiry seems to favour an opinion, that an acquaintance with both languages is absolutely necessary to effect the important purposes that at present introduce themselves to our notice, and which are to prove the inhabitants of *Siam*, *Ava*, and *Aracan*, to be one and the same people in language, manners, laws, and religion; and features of the strongest resemblance between them and those of *Assam*, *Népal*, and *Tibet*; and eventually to add another link to the chain of general knowledge, by furnishing materials for filling up the interval that seems at present to separate the *Hindus* from the *Chinese*.

Caout-chouc. The vine which produces this milk is generally about the thickness of the arm, and almost round, with a strong ash-coloured bark, much cracked, and divided longitudinally; has joints at a small distance, from each other, which often send out roots, but seldom branches; runs upon the ground to a great length; at last rises upon the highest trees into the open air. It is found in the greatest plenty at the foot of the mountains, upon a red clay mixed with sand, in situations completely shaded, and where the mercury in the thermometer will seldom exceed summer heat.

In my numerous attempts to trace this vine to its top, I never succeeded; for, after following it in its different windings, sometimes to a distance of two hundred paces, I lost it, from its ascending among the branches of trees that were inaccessible either from their size or height. On the west coast of *Sumatra* I understand they have been more successful; *Doctor Roxburgh* having procured from thence a specimen of the vine in flowers, from which he has classed it; but whose description I have not yet seen.

With us the *Malays* have found tasting of the milk the best mode of discriminating between the elastic gum vine and those which resemble it in giving out a milky juice, of which we have a great variety; the liquid from the former being much less pungent or corrosive than that obtained from the latter.

The usual method of drawing off the milk is by wounding the bark deeply in different places, from which it runs but slowly, it being full employment for one person to collect a quart in the course of two days. A much more expeditious mode, but ruinous to the vine, is cutting it in lengths of two feet, and placing under both ends vessels to receive the milk. The best is always procured from the oldest vines. From them it is often obtained in a consistence equal to thick cream, and which will yield two thirds of its own weight in gum.

The chemical properties of this vegetable milk, so far as I have had an opportunity of examining, surprisingly resemble those of animal milk. From its decomposition in consequence of spontaneous fermentation, or by the addition of acids, a separation takes place between its *caseous* and ferous parts, both of which are very similar to those produced by the same processes from animal milk. An oily or butyrous matter is also one of its component parts, which appears upon the surface of the gum so soon as the latter has attained its solid form. The presence of this considerably impeded the progress of my experiments, as will be seen hereafter.

I was

I was at some trouble in endeavouring to form an extract of this milk so as to approach to the consistence of new butter, by which I hoped to retard its fermentative stage, without depriving it of its useful qualities; but as I had no apparatus for distilling, the surface of the milk, that was exposed to the air, instantly formed into a solid coat, by which the evaporation was in a great degree prevented. I, however, learned, by collecting the thickened milk from the inside of the coats, and depositing it in a jelly pot, that, if excluded from the air, it might be preserved in this state for a considerable length of time.

I have kept it in bottles, without any preparation, tolerably good, upwards of one year; for, notwithstanding the fermentation soon takes place, the decomposition in consequence is only partial, and what remains fluid, still retains its original properties, although considerably diminished.

Not having seen *M. Fourcroy's* memoir on *Caout-chouc*, I could not make trials of the methods proposed by him for preserving the milk unaltered.

In making boots, gloves, and bottles, of the elastic gum, I found the following method the best: I first made moulds of wax, as nearly of the size and shape of what they represented as possible; these I hung separately upon pins, about a foot from the ground, by pieces of cord wrought into the wax: I then placed under each a soup plate, into which I poured as much of the milk as I thought would be sufficient for one coat. Having dipped my fingers in this, I completely covered the moulds one after another, and what dropped into the plates was used as part of the next coat: the first I generally found sufficiently dry in the space of ten minutes, when exposed to the sun, to admit of a second being applied: however, after every second coat, the oily matter before mentioned was in such quantity upon the surface, that, until washed off with soap and water, I found it impossible to apply any more milk with effect; for, if laid on, it kept running and dividing like water upon wax.

Thirty coats I in common found sufficient to give a covering of the thickness of the bottles which come from *America*. This circumstance may, however, at any time be ascertained, by introducing the finger between the mould and gum, the one very readily separating from the other.

I found the fingers preferable to a brush, or any instrument whatever, for laying on the milk; for the moment a brush was wet with that fluid, the hair became united as one mass. A mode which at first view would appear to have the advantage of all others for ease and expedition in covering clay and wax moulds
with

with the gum, viz. immersing them in the milk, did not at all answer upon trial; that fluid running almost entirely off, although none of the oily matter was present; a certain degree of force seeming necessary to incorporate by friction the milk with the new formed gum.

When, upon examination, I found that the boots and gloves were of the thickness wanted, I turned them over at the top, and drew them off; as if from the leg or hand, by which I saved the trouble of forming new moulds. Those of the bottles being smallest at the neck, I was under the necessity of dissolving in hot water.

The inside of the boots and gloves which had been in contact with the wax being by far the smoothest, I made the outside. The gloves were now finished, unless cutting their tops even, which was best done with scissors. The boots, however, in their present state, more resembled stockings, having as yet no soles. To supply them with these, I poured upon a piece of gunny a proper quantity of milk, to give it a thick coat of gum. From this, when dry, I cut pieces sufficiently large to cover the sole of the foot, which, having met with the milk, I applied; first replacing the boot upon the mould to keep it properly extended. By this mode the soles were so firmly joined, that no force could afterwards separate them. In the same manner I added heels and straps, when the boots had a very neat appearance. To satisfy myself as to their impermeability to water, I stood in a pond up to their tops for the space of fifteen minutes, when, upon pulling them off, I did not find my stockings in the least damp. Indeed, from the nature of the gum, had it been for a period of as many months, the same result was to have been expected.

After being thus far successful, I was greatly disappointed in my expectations with regard to their retaining their original shape; for, on wearing them but a few times, they lost much of their first neatness, the contractions of the gum being only equal to about seven-eighths of its extension.

A second disadvantage arose from a circumstance difficult to guard against, which was, that if, by any accident, the gum should be in the smallest degree weaker in one place than another, the effect of extension fell almost entirely on that part, and the consequence was, that it soon gave way.

From what I had observed of the advantage gained in substance and uniformity of strength, by making use of gunny as a basis for the soles, I was led to suppose, that if an elastic cloth, in some degree correspondent to the elasticity of the gum, were used for boots, stockings, gloves, and other articles, where that property was necessary,

necessary, that the defects above mentioned might in a great measure be remedied. I accordingly made my first experiment with *Cossimbazar* stockings and gloves.

Having drawn them upon the wax moulds, I plunged them into vessels containing the milk, which the cloth greedily absorbed. When taken out, they were so completely distended with the gum in solution, that, upon becoming dry by exposure to the air, not only every thread, but every fibre of the cotton had its own distinct envelope, and in consequence was equally capable of resisting the action of foreign bodies as if of solid gum.

The first coat by this method was of such thickness, that for stockings or gloves nothing farther was necessary. What were intended for boots required a few more applications of milk with the fingers, and were finished as those made with the gum only.

This mode of giving cloth as a basis I found to be a very great improvement: for, besides the addition of strength received by the gum, the operation was much shortened.

Woven substances, that are to be covered with the gum, as also the moulds on which they are to be placed, ought to be considerably larger than the bodies they are afterwards intended to fit; for, being much contracted from the absorption of the milk, little alteration takes place in this diminution in size, even when dry, as about one-third only of the fluid evaporates before the gum acquires its solid form.

Great attention must be paid to prevent one part of the gum coming in contact with another while wet with the milk or its whey; for the instant that takes place, they become inseparably united. But should we ever succeed in having large plantations of our own vine, or in transferring the *American* tree (which is perhaps more productive) to our possessions, so that milk could be procured in sufficient quantity for the covering various cloths, which should be done on the spot, and afterwards exported to *Europe*, then the advantages attending this singular property of the milk would for ever balance its disadvantages: cloths, and coverings of different descriptions, might then be made from this gum cloth, with an expedition so much greater than by the needle, that would at first appear very surprising: the edges of the separate pieces only requiring to be wet with the milk, or its whey, and brought into contact, when the article would be finished, and fit for use. Should both milk and whey be wanting, a solution of the gum in ether can always be obtained, by which the same end would be accomplished.

Of all the cloths upon which I made experiments, nankeen, from the strength
and

and quality of its fabric, appeared the best calculated for coating with the gum. The method I followed in performing this, was, to lay the cloth smooth upon a table, pour the milk upon it, and with a ruler to spread it equally. But should this ever be attempted on a larger scale, I would recommend the following plan: To have a cistern for holding the milk a little broader than the cloth, to be covered with a cross bar in the centre, which must reach under the surface of the milk, and two rollers at one end. Having filled the cistern, one end of the piece of cloth is to be passed under the bar, and through between the rollers; the former keeping the cloth immersed in the milk, the latter in pressing out what is superfluous, so that none may be lost. The cloth can be hung up at full length to dry; and the operation repeated until of whatever thickness wanted. For the reasons above-mentioned, care must be taken that one fold does not come in contact with another while wet.

Having observed that most of the patent catheters and bougies made with a solution of the elastic gum, whether in ether or in the essential oils, had either a disagreeable stickiness, or were too hard to admit of any advantage being derived from the elasticity of the gum, I was induced to make some experiments with the milk towards removing these objections.

From that fluid, by evaporation, I made several large sized bougies of pure gum, which, from their over-flexibility, were totally useless. I then took some slips of fine cloth covered with the gum, which I rolled up until of a proper size, and which I rendered solid by soaking them in the milk, and then drying them. These possessed more firmness than the former, but in no degree sufficient for the purpose intended. Pieces of strong catgut, coated with the gum, I found to answer better than either.

Besides an effectual cloathing for manufacturers employed with the mineral acids, which had been long a desideratum, this substance, under different modifications, might be applied to a number of other useful purposes in life; such as making hats, great coats, boots, &c. for sailors, soldiers, fishermen, and every other description of persons who, from their pursuits, are exposed to wet stockings; for invalids, who suffer from damps; bathing caps, tents, coverings for carriages of all kinds, for roofs of houses, trunks, buoys, &c.

This extraordinary vegetable production, in place of being injured by water, at

its usual temperature * is preserved by it. For a knowledge of this circumstance I am indebted to the *Chinese*. Having some years ago commissioned articles made of the elastic gum from *China*, I received them in a small jar filled up with water, in which state I have since kept them without observing any signs of decay.

Should it ever be deemed an object to attempt plantations of the elastic gum vine in *Bengal*, I would recommend the foot of the *Chittagong*, *Rajmahal* and *Bauglipore* hills, as situations where there is every probability of succeeding, being very similar in soil and climate to the places of its growth on *Prince of Wales's Island*. It would, however, be advisable to make the first trial at this settlement, to learn in what way the propagation of the plant might be most successfully conducted. A further experience may also be necessary, to ascertain the season when the milk can be procured of the best quality, and in the greatest quantity, with the least detriment to the vine.

* From an account of experiments made with the elastic GUM by M. GROSSART, inserted in the *Annals de Chimie* for 1792, it appears, that water, when boiling, has a power of partially dissolving the gum so as to render one part capable of being finally joined to another by pressure only.

XIV.

A BOTANICAL DESCRIPTION OF URCEOLA ELASTICA, OR CAOUT-CHOUC VINE OF SUMATRA AND PULLO-PINANG; WITH AN ACCOUNT OF THE PROPERTIES OF ITS INSPISATED JUICE, COMPARED WITH THOSE OF THE AMERICAN CAOUT-CHOUC.

By WILLIAM ROXBURGH, M. D.

FOR the discovery of this useful vine, we are, I believe, indebted to Mr. HOWISON, late *Surgeon* at *Pullo-pinang*; but it would appear he had no opportunity of determining its botanical character. To *Doctor* CHARLES CAMPBELL, of *Fort Marlborough*, we owe the gratification arising from a knowledge thereof.

About

About twelve months ago I received from that gentleman, by means of Mr. FLEMING, very complete specimens, in full foliage, flower, and fruit. From these I was enabled to reduce it to its class and order in the *Linnæan* System. It forms a new genus in the class *Pentandria*, and order *Monogynia*, and comes in immediately after *Tabernæmontana*, consequently belongs to the thirtieth natural order, or class called *Contortæ* by LINNÆUS in his natural method of classification or arrangement. One of the qualities of the plants of this order is, their yielding, on being cut, a juice which is generally milky, and for the most part deemed of a poisonous nature.

The generic name, *Urceola*, which I have given to this plant, is from the structure of the corol, and the specific name from the quality of its thickened juice.

So far as I can find, it does not appear that ever this vine has been taken notice of by any *European* till now. I have carefully looked over the *Hortus Malabaricus*, RUMPHIUS's *Herbarium Amboinense*, &c. &c. *Figures of Indian Plants*, without being able to find any one that can with any degree of certainty be referred to. A substance of the same nature, and probably the very same, was discovered in the Island of *Mauritius*, by M. POIVRE, and from thence sent to *France*; but, so far as I know, we are still ignorant of the plant that yields it.

The impropriety of giving to *Caout-chouc* the term gum, resin, or gum-resin, every one seems sensible of, as it possesses qualities totally different from all such substances as are usually arranged under those generic names: yet it still continues, by most authors I have met with, to be denominated elastic resin, or elastic gum. Some term it simply *Caout-chouc*, which I wish may be considered as the generic name of all such concrete vegetable juices (mentioned in this memoir) as possess elasticity, inflammability, and are soluble in the essential oils, without the assistance of heat.

In a mere definition, it would be improper to state what qualities the object does not possess; consequently it must be understood that this substance is not soluble in the menstrua which usually dissolve resins and gums.

East-India Caout-chouc would be a very proper specific name for that of *Urceola elastica*, were there not other trees which yield juices so similar as to come under the same generic character; but as this is really the case, I will apply the name of the tree which yields it for a specific one. E. G. *Caout-chouc* of *Urceola elastica*, *Caout-chouc* of *Ficus Indica*, *Caout-chouc* of *Artocarpus integrifolia*, &c. &c.

DESCRIPTION OF THE PLANT URCEOLA.

PENTANDRIA MONOGYNIA.

Gen. Char. calyx beneath five-toothed; corol one petaled, pitcher shaped, with its contracted mouth five toothed: nectary entire, surrounding the germs; follicles two, round, drupacious; seeds numerous, immersed in pulp.

Urceola Elastica.

Shrubby, twining, leaves opposite, oblong, panicles terminal, is a native of *Sumatra, Pullo-pinang, &c. Malay countries.*

Stem, woody, climbing over trees, &c. to a very great extent, young shoots twining, and a little hairy, bark of the old woody parts thick, dark coloured, considerably uneven, a little scabrous, on which I found several species of moss, particularly large patches of *lichen*; the wood is white, light and porous.

Leaves, opposite, short-petioled, horizontal, ovate, oblong, pointed, entire, a little scabrous, with a few scattered white hairs on the under side.

Stipules, none.

Panicles, terminal, brachiate, very ramous.

Flowers, numerous, minute, of a dull, greenish colour, and hairy on the outside.

Bracts, lanceolate, one at each division and subdivision of the panicle.

Calyx, perianth, one-leaved, five-toothed, permanent.

Corol, one petaled, pitcher shaped, hairy, mouth much contracted, five-toothed, divisions erect, acute, nectary entire, cylindrick, embracing the lower two-thirds of the germs.

Stamens, filaments five, very short, from the base of the corol. Anthers arrow shaped, converging, bearing their pollen in two grooves on the inside, near the apex; between these grooves and the insertions of the filaments they are covered with white soft hairs.

Pistil, germs two; above the nectary they are very hairy round the margins of their truncated tops. Style single, shorter than the stamens. Stigma ovate, with a circular band, dividing it into two portions of different colours.

Per. Follicles two, round, laterally compressed into the shape of a turnip, wrinkled, leathery, about three inches in their greatest diameters—one celled, two valved.

Seeds, very numerous, reniform, immersed in firm fleshy pulp.

EXPLANATION OF THE FIGURES.

1. A branchlet in flower, natural size.
2. A flower magnified.
3. The same laid open, which exposes to view the situation of the stamens inserted into the bottom of the corol, the nectarium surrounding the lower half of the two germs, their upper half with hairy margins, the style and ovate party-coloured; stigma appearing above the nectary.
4. Outside of one of the stamens
5. Inside of the same
- } much magnified.
6. The nectarium laid open, exposing to view the whole of the pistil.
7. The two seed vessels (called by Linnæus *follicles*), natural size; half of one of them is removed, to shew the seed immersed in pulp. A portion thereof is also cut away, which more clearly shews the situation and shape of the seed.

From wounds made in the bark of this plant there oozes a milky fluid, which on exposure to the open air, separates into an elastic coagulum, and watery liquid, apparently of no use, after the separation takes place. This coagulum is not only like the American *caout-chouc* or Indian rubber, but possesses the same properties, as will be seen from the following experiments and observations made on some which had been extracted from the vine about five months ago. A ball of it now before me, is to my sense, totally void of smell, even when cut into, is very firm, nearly spherical, measures nine and a half inches in circumference, and weighs seven ounces and a quarter, its colour on the outside is that of American *caout-chouc*, where fresh cut into of a light brown colour till the action of the air darkens it; throughout there are numerous small cells, filled with a portion of light brown watery liquid above mentioned. This ball, in simply falling from a height of fifteen feet, rebounds about ten or twelve times, the first is from five to seven feet high, the succeeding ones of course lessening by gradation.

This substance is not now soluble in the above mentioned liquid contained in its cells, although so intimately blended therewith when first drawn from the plant, as to render it so thin, as to be readily applied to the various purposes to which it is so well adapted when in a fluid state.

From what has been said, it will be evident that this *caout-chouc* possesses a considerable share of solidity and elasticity in an eminent degree. I compared the
last

last quality, with that of American *caout-chouc* by taking small slips of each, and extending them till they broke; that of *Urceola* was found capable of bearing a much greater degree of extension (and contraction) than the American: however, this may be owing to the time the respective substances have been drawn from their plants.

The *Urceola caout-chouc*, rubs out the marks of a black lead pencil, as readily as the American, and is evidently the substance of which the Chinese make their elastic rings.

It contains much combustible matter, burning entirely away, with a clear flame, emitting a considerable deal of dark-coloured smoke which readily condenses into a large proportion of exceeding fine foot, or lamp-black; at the same time it gives but little smell, and that not disagreeable; the combustion is often so rapid, as to cause drops of a black liquid, very like tar, to fall from the burning mass; this is equally inflammable with the rest, and continues when cold in its semi-fluid state, but totally void of elasticity: in *America* the *caout-chouc* is used for torches, ours appears to be equally fit for that purpose. Exposed in a silver spoon to a heat, about equal to that which melts lead or tin, it is reduced into a thick, black, inflammable liquid, such as drops from it during combustion, and is equally deprived of its elastic powers, consequently rendered unfit for those purposes, for which its original elasticity rendered it so proper.

It is insoluble in spirits of wine, nor has water any more effect on it, except when assisted by heat, and then it is only softened by it.

Sulphuric acid reduced it into a black, brittle, charcoal like substance, beginning at the surface of the *caout-chouc*, and if the pieces are not very thin, or small, it requires some days to penetrate to their centre; during the process, the acid is rendered very dark coloured, almost black. If the sulphuric acid is previously diluted, with only an equal quantity of water, it does not then appear to have any effect on this substance, nor is the colour of the liquid changed thereby.

Nitric acid reduced it in twelve hours to a soft, yellow, unelastic mass, while the acid is rendered yellow; at the end of two days, the *caout-chouc* had acquired some degree of friability and hardness. The same experiment made on American *caout-chouc* was attended with similar effects. Muriatic acid had no effect on it.

Sulphuric æther only softened it, and rendered the different minute portions it was cut into easily united, and without any seeming diminution of elasticity.

Nitric

Nitric æther I did not find a better menstruum than the vitriolic, consequently, if the æther I employed was pure, of which I have some doubt, this substance must differ essentially from that of *America*, which BERNIARD reports to be soluble in nitric æther.

Where this substance can be had in a fluid state, there is no necessity for dissolving or softening it, to render it applicable to the various uses for which it may be required; but where the dry *caout-chouc* is only procurable, sulphuric æther promises to be an useful medium, by which it may be rendered so soft as to be readily formed into a variety of shapes.

Like American *caout-chouc*, it is soluble in the essential oil of turpentine, and I find it equally so in Cajeput oil, an essential oil, said to be obtained from the leaves of *Melaleuca Leucadendron*. Both solutions appear perfect, thick, and very glutinous. Spirits of wine, added to the solution in Cajeput oil, soon united with the oil, and left the *caout-chouc* floating on the mixture in a soft semi-fluid state, which, on being washed in the same liquor, and exposed to the air, became as firm as before it was dissolved, and retained its elastic powers perfectly, while in the intermediate states between semi-fluid and firm, it could be drawn out into long, transparent threads, resembling, in the polish of their surface, the fibres of the tendons of animals; when they broke, the elasticity was so great, that each end instantaneously returned to its respective mass. Through all these stages the least pressure with the finger and thumb united different portions, as perfectly as if they never had been separated, and without any clamminess, or sticking to the fingers, which renders most of the solutions of *caout-chouc*, so very unfit for the purposes for which they are required. A piece of catgut covered with the half-inspissated solution, and rolled between two smooth surfaces, soon acquired a polish, and consistence very proper for bougies. Cajeput oil, I also found a good menstruum for American *caout-chouc*, and was as readily separated by the addition of a little spirit of wine, or rum, as the other, and appears equally fit for use, as I covered a piece of catgut with the washing solution, as perfectly as with that of *Urceola*. The only difference I could observe, was a little more adhesiveness from its not drying so quickly; the oil of turpentine had greater attraction for the *caout-chouc*, than for the spirits of wine, consequently remained obstinately united to the former, which prevented its being brought into that state of firmness fit for handling, which it acquired when Cajeput oil was the menstruum.

The

The Cajeput solution employed as a varnish did not dry, but remained moist and clammy, whereas the turpentine solution dried pretty fast.

Expressed oil of olives and linseed proved imperfect menstruums while cold, as the *caout-chouc*, in several days, was only rendered soft, and the oils viscid, but with a degree of heat equal to that which melts tin, continued for about twenty-five minutes, it was perfectly dissolved, but the solution remained thin and void of elasticity. I also found it soluble in wax, and in butter in the same degree of heat, but still these solutions were without elasticity, or any appearance of being useful.

I shall now conclude what I have to offer on the *caout-chouc*, or *Urceola elastica*, with observing that some philosophers of eminence have entertained doubts of the American *caout-chouc* being a simple vegetable substance, and suspect it to be an artificial production, an idea which I hope the above detailed experiments will help to eradicate, and consequently to restore the histories of that substance by M. *De la Condamine* and others, to that degree of credit to which they seem justly entitled; in support of which it may be further observed, that besides *Urceola elastica* there are many other trees, natives of the Torrid Zone, that yield a milky juice, possessing qualities nearly of the same nature, as *artocarpus integrifolia* (common jack tree), *ficus religiosus et Indica*, *Hippomane biglandulosa*, *Cecropia peltata*, &c.

The *caout-chouc* or *ficus religiosa*, the Hindus consider the most tenacious vegetable juice they are acquainted with; from it their best bird lime is prepared. I have examined its qualities as well as those of *ficus Indica* and *artocarpus integrifolia*, by experiments, similar to those above-related, and found them triflingly elastic when compared with the American and *Urceola caout-choucs*, but infinitely more viscid than either; they are also inflammable, though in a less degree, and shew nearly the same phenomena when immersed in the mineral acids, solution of caustic alkali, alcohol, fat, and essential oils; but the solution in Cajeput oil could not be separated by spirits of wine and collected again like the solutions of the *Urceola* and American *caout-choucs*.

XV.

SOME ACCOUNT OF THE ASTRONOMICAL LABOURS OF JAYASINHA, RAJAH OF AMBHERE, OR JAYANAGAR.

By WILLIAM HUNTER, *Esq.*

WHILE the attention of the learned world has been turned towards the state of science in remote ages and countries, and the labours of the *Asiatick Society* have been more particularly directed to investigate the knowledge attained by the ancient inhabitants of Hindustan; it is a tribute due to a congenial spirit, to rescue from oblivion those among their descendants in modern times, who, rising superior to the prejudices of education, of national pride and religion, have striven to enrich their country with scientific truth derived from a foreign source.

The name of JAYASINHA is not unknown in *Europe*; it has been consigned to immortality by the pen of the illustrious Sir WILLIAM JONES: but yet, the extent of his exertions in the cause of science is little known; and the just claims of superior genius and zeal will, I hope, justify my taking up a part of the Society's time with a more particular enumeration of his labours.

JEY-SING or JAYASINHA succeeded to the inheritance of the ancient Rajahs of Ambhere, in the year *Vicramadittyā* 1750, corresponding to 1693 of the *Christian* æra. His mind had been early stored with the knowledge contained in the Hindu writings, but he appears to have peculiarly attached himself to the mathematical sciences, and his reputation for skill in them stood so high, that he was chosen by the Emperor MAHOMMED SHAH to reform the calendar, which, from the inaccuracy of the existing tables, had ceased to correspond with the actual appearance of the heavens. JAYASINHA undertook the task, and constructed a new set of tables, which in honour of the reigning prince he named *Zeej Mahommedshahy*. By these almanacks are constructed at *Debly*, and all astronomical computations made at the present time. The best and most authentic account of his labours for the completion of this work and the advancement of astronomical knowledge is contained in his own preface to the *Zeej Mahommedshahy*, which follows with a literal translation.

‘ *Praise* be to God, such that the
 ‘ minutely discerning genius of the
 ‘ profoundest geometers in uttering
 ‘ the smallest particle of it, may open
 ‘ the mouth in confession of inability;
 ‘ and such adoration, that the study
 ‘ and accuracy of astronomers who
 ‘ measure the heavens, on the first step
 ‘ towards expressing it, may acknow-
 ‘ ledge their astonishment and utter
 ‘ insufficiency. Let us devote our-
 ‘ selves at the altar of the King of
 ‘ Kings, hallowed be his name! in the
 ‘ book of the register of whose power
 ‘ the lofty orbs of heaven are only a
 ‘ few leaves; and the stars and that
 ‘ heavenly courser the sun, a small
 ‘ piece of money in the treasury of
 ‘ the empire of the Most High.

‘ If he had not adorned the pages of
 ‘ the table of the climates of the earth
 ‘ with the lines of rivers, and the
 ‘ characters of grasses and trees, no
 ‘ calculator could have constructed the
 ‘ almanack of the various kinds of
 ‘ seeds and of fruits which it contains.
 ‘ And if he had not enlightened the
 ‘ dark path of the elements with the
 ‘ torches of the fixed stars, the pla-
 ‘ nets, and the resplendent sun and
 ‘ moon, how could it have been pos-
 ‘ sible to arrive at the end of our wishes,
 ‘ or to escape from the labyrinth, and
 ‘ the precipices of ignorance?

بسم الله الرحمن الرحيم

تأهلی که خرد خورده بین هند سان
 عقده کشا در ادای دقیقه از ان زبان
 اعتراف بعجز و تصور کشاید و ستایشی
 که فکر اصابت قرین را صدان فلک
 پیمای یا ولین در جه آن شرح و
 بیان اقرار به تحیر و نارسایی نباید
 نثار بارگاه شبهتاهی که طباق سهوات
 یکند و رقیست چند از دفتر دیوان
 قدرت او تقدس اسماء و انعم و خورشید
 آسمان پیوند دینار و درههی است
 معروف از پنه خازن سلطنت او تعالت
 الا اگر صغجات زتیج اقالیم زمین را
 جدا ول انهار و رقوم نجوم و اشجار
 مجلی و مزین نمیساخت هیچ مستخر
 جی اسجراج

تقویم انواع حیب و ثمار نتوان تنی
 نمود و اگر راه ظهیت اباد عناصر را نهشاعل
 ثوابت و سیار رتابدار و مهتاب و آفتاب
 نوربار ظاهر نمیکرد رسیدن بسر منزل
 مقصود و نجات از نار سا می غور
 محیط قدر نش ابر خس خس است بر
 هم زن دست افسوس و در اند یسه از
 تغاع قدرش بطلمیوس خفاشی از رسیدن

From inability to comprehend the all-encompassing beneficence of his power, HIPPARCHUS is an ignorant clown, who wrings the hands of vexation; and in the contemplation of his exalted majesty, PTOLEMY is a bat, who can never arrive at the sun of truth: the demonstrations of EUCLID are an imperfect sketch of the forms of his contrivance; and thousands of JEMSHED CASHY, or NUSSEER TOOSEE, in this attempt would labour in vain.

But since the well-wisher of the works of creation, and the admiring spectator of the theatre of infinite wisdom and providence, *Servai-Jey-fing* from the first dawning of reason in his mind, and during its progress towards maturity, was entirely devoted to the study of mathematical science, and the bent of his mind was constantly directed to the solution of its most difficult problems; by the aid of the supreme artificer he obtained a thorough knowledge of its principles and rules. He found that the calculation of the places of the stars as obtained from the tables in common use, such as the new tables of SEID GOORGANEE and KHACANEE, and the *Tufbeelat-Mulachand Akber-shabee*, and the Hindu books, and the European tables, in

با قتلح حقیقت مایوس بر اهین
اقلیدس در بیان اشکال صنایع او حر
فی ناتهام و حرار ان جهشید کاشی
چون نصیر طوسی در یختن سورای
خام امابعد خیر

خواه اصناف آذر ینش و تباشای
کار کاه دانش و بینش سوائی جینگ
از بدو فطرت و عنعوان سعور بغن
ریاضی مشعوف و ما لوف بود و هبو
اره عنان طبعش بکشف دقایق و حل
غوامض آن مصروف بتاه ید کرد کار از
اصول و قوانین آن خطی وافر و نصیبی
کامل حاصل کرد چنان یافت که
استخراج تقادیم کواکب که از زیجهای
متعارف مثل زیج جدید سعید کور
کانی و خاقانی و تسهیلات ملا چاند
اکبر شاهى و کتبهای هندی و زیج
فرنگی میشود اگر و اغلب اوقات دور از
مر صد و عیان می یابند خصوصاً
روته اهله که حباب آن با مشاهدۀ کم
موافقت میکند

‘ very many cases, give them widely
 ‘ different from those determined by
 ‘ observation: especially the appear-
 ‘ ance of the new moons, the compu-
 ‘ tation of which does not agree with
 ‘ observation.

‘ Seeing that very important affairs
 ‘ both regarding religion and the ad-
 ‘ ministration of empire depend upon
 ‘ these; and that in the time of the
 ‘ rising and setting of the planets,
 ‘ and the seasons of the eclipses of the
 ‘ sun and moon, many considerable
 ‘ disagreements, of a similar nature,
 ‘ were found; he represented it to his
 ‘ majesty of dignity and power, the
 ‘ sun of the firmament of felicity and
 ‘ dominion, the splendor of the fore-
 ‘ head of imperial magnificence, the
 ‘ unrivalled pearl of the sea of sove-
 ‘ reignty, the incomparably brightest
 ‘ star of the heaven of empire, whose
 ‘ standard is the Sun, whose retinue
 ‘ the Moon; whose lance is MARS,
 ‘ and his pen like MERCURY; with
 ‘ attendants like VENUS; whose thresh-
 ‘ old is the sky, whose signet is JUPI-
 ‘ TER; whose centinel SATURN; the
 ‘ Emperor descended from a long race
 ‘ of Kings; an ALEXANDER in dig-
 ‘ nity; the shadow of GOD; the victo-
 ‘ rious king, *Mahommed Shah*, may he
 ‘ ever be triumphant in battle!

‘ He was pleased to reply, since you,

و حال آنکه کار های سترک ارباب
 مال و نحل و اصحاب دین و دول
 بدان منوط و مر بوط است و همین طور
 در اوقات ظهور و خفای کواکب سیار
 ات و ازمنه کسوفات و خسوفات اکثر تفاوت
 فا حش رومیدهد اینم عنبر ایهت و
 کامکاری غره ناصیه عظمت و شهر بعرض
 حضرت قدر قدرت مهر سپهر یاری در یکتای
 بحر خلافت کبری در ی بی همتای
 فلک سلطنت عظمی خورشید علم مر
 حشم مرج ریح عطار دقلم ناهید خدم
 سپهر آستان مشنری نکین کیوان
 پاشبان السلطان ابن السلطان الخاقان
 ابن الخاقان سکندر جاه ظل اسباب
 شاه غازی محمد شاه لازال مظفرا فی
 البعارک والبعاری رسانید

فرمودند که چون آن دانای اسرار
 ‘ who

‘ who are learned in the mysteries of
 ‘ science, have a perfect knowledge of
 ‘ this matter; having assembled the as-
 ‘ tronomers and geometricians of the
 ‘ faith of ISLAM and the *Bramins* and
 ‘ *Pandits*, and the astronomers of Eu-
 ‘ rope, and having prepared all the ap-
 ‘ paratus of an observatory, do you fo-
 ‘ labour for the ascertaining of the
 ‘ point in question, that the disagree-
 ‘ ment between the calculated times
 ‘ of those phenomena and the times
 ‘ in which they are observed to hap-
 ‘ pen may be rectified.

‘ Although this was a mighty task,
 ‘ which during a long period of time
 ‘ none of the powerful Rajahs had
 ‘ prosecuted; nor, among the tribes
 ‘ of ISLAM, since the time of the
 ‘ martyr-prince, whose sins are for-
 ‘ given, MIRZA ULUGA BEG, to the
 ‘ present, which comprehends a pe-
 ‘ riod of more than three hundred
 ‘ years, had any one of the kings,
 ‘ possessed of power and dignity, turn-
 ‘ ed his attention to this object; yet,
 ‘ to accomplish the exalted command
 ‘ which he had received, he (*fey-sing*)
 ‘ bound the girdle of resolution about
 ‘ the loins of his soul, and constructed
 ‘ here (at Dehly) several of the instru-
 ‘ ments of an observatory, such as had
 ‘ been erected at *Samarcand*, agreeably
 ‘ to the *Musulman* books: such as *Za-
 ‘ ulbuluck*, of brass, in diameter three

را درین امر مهارت تمام است مهندسان و
 منجمان فرقر اسلام و برهمنان و پند
 تال و منجمان فریکرا جمع نموده و
 آلات رصدی ساخته تحقیقت کار
 واریسیده چنان سعی نباید که این
 اختلال که در زمان محسوب امور
 مر بوره و وقت مر صود آنها واقع میشود
 مر نفع کردن

هرچند که این امر خطیر بود و مدت
 مدید شده که از راجهای دوالا قتدار
 کی پیر امون ان نکر دیده و در فر
 قه اهل اسلام هم از زمان شاه مرزا انع
 بیک تا این زمان که زیاده از سیصد
 سال گزرشته هیچ یکی از سلاطین
 ذی شان وضا حب ثر و تان بلند
 مکان باین کار میتوجه نگشته از بر
 ای بیجا آودن فر مورده ار فع اعلی
 شرانجام امر ما موررا نطاف هبت بر میان
 جان بسته چندی از آلات رصدی ما
 تند انکه در سهرقند ساخته بود ند
 ازروی کتب اسلام در ایجا هم ساخت
 دات الحلق بر نجبی بقطر سه کز
 رایج این عصر که قریب ضعف ذراع
 اهل شرع است و ذات الشعبتین و
 ذات الثقتین و سدس فخری و شامله
 لیکن چون آلهای بر نجیرا بنیب
 ‘ *guz*

' *guz* of the measure now in use,
 ' (which is nearly equal to two cubits
 ' of the *Coram*,) and *Zat-ul-shobetein*,
 ' and *Zat-ul-fuchetein*, and *Suds-Fuk-*
 ' *beri*, and *shamlab*. But finding that
 ' brass instruments did not come up to
 ' the ideas which he had formed of
 ' accuracy, because of the smallness of
 ' their size, the want of division into
 ' minutes, the shaking and wearing of
 ' their axes, the displacement of the
 ' centres of the circles, and the shift-
 ' ing of the planes of the instruments;
 ' he concluded that the reason why
 ' the determinations of the ancients,
 ' such as HIPPARCHUS and PTOLEMY,
 ' proved inaccurate, must have been
 ' of this kind; therefore he construct-
 ' ed in *Dar-ul-kbelâfet Shab-jehana-*
 ' *bad*, which is the seat of empire and
 ' prosperity, instruments of his own
 ' invention, such as *Jey-pergâs* and
 ' *Ram-junter* and *Semrât-junter*, the
 ' semidiameter of which is of eigh-
 ' teen cubits, and one minute on it is
 ' a barley-corn and a half; of stone
 ' and lime, of perfect stability, with
 ' attention to the rules of geometry,
 ' and adjustment to the meridian, and
 ' to the latitude of the place, and with
 ' care in the measuring and fixing of
 ' them; so that the inaccuracies from
 ' the shaking of the circles, and
 ' the wearing of their axes, and dis-
 ' placement of their centres, and the

خردی وعدم تقیم بدقایق و لرزش
 خور دن و سوده کشتن قطبهای و
 بیجا شدن مرکز دوایر و اختلال و
 ضعیف مقررې مطلوب کما ینعی مشرمد
 عانیافت معلوم کرد که سبب در
 ست نیامدن مقرر رات قد ما مانند ابر
 خس و بطلبیوس امثال همین امور
 خواهد بود بنا بران در دار الخلافه
 شاه جهان آباد که محل دولقواقبال
 است التلهی اختر اعی خود مثل حی
 پرکاس و رام جنترو سهر اتهه جنترو
 که نصف قطر آن هز ده دراع است و
 دقیقه آن یک و نیم شعیره میشود از
 سنک و آهک باستحکام تمام و رزانت
 مالا کلام نارعلیت قوانین هندسی
 و تحقیق خط تصف آنها و عرض
 بلد و احتیاط در پیمایش و نصب آنها تار
 کرده تابدین سبب خلل لرزش حلقهای
 دوایر و ساییدن اقطاب و بیجا شدن مرکز
 اکثر و تفاوت دقایق بر طرف کردید

inequality of the minutes, might be corrected.

Thus an accurate method of constructing an observatory was established; and the difference which had existed between the computed and observed places of the fixed stars and planets, by means of observing their mean motions and aberrations with such instruments, was removed. And, in order to confirm the truth of these observations, he constructed instruments of the same kind in *Survai Jeypoor*, and *Matra*, and *Benares*, and *Oujein*.—When he compared these observatories, after allowing for the difference of longitude between the places where they stood, the observations and calculations agreed.—Hence he determined to erect similar observatories in other large cities, that so every person who is devoted to these studies, whenever he wishes to ascertain the place of a star, or the relative situation of one star to another, might by these instruments observe the phenomena. But, seeing that in many cases it is necessary to determine past or future phenomena, and also, that in the instant of their occurrence, clouds or rain may prevent the observation, or the power and opportunity of access to an observatory may be wanting, he deemed

و برای رصد طریق مستقیم پیداکشت
و تغاد تی که در محسوب نوابت و
سیار و مَرِ صود آنها میشد با ستاننت
چنین آلات او ساط و حرکات واقعی
آنها دانسته مَرِ تغع ساخت و برای
استشهاد حقیقت مدعا بهین قسم آلات
در سوای جی پور و متھرا و بنارس
و او جین هم بنا کرده شد چون
های این امکنه را بعد از تفاوت
ملا حظر اطوال بلاد مقابله کردند
محسوب بامر صود یکی آمد قصد بر
ان مصمم شد که همین طور آلات در
شهرهای کلان دیگر هم ساخته و پیر
داخته کردند تا هر که آستنای این
فن باشد هر گاه که موضع کو
کبی با وضع کو کبی بسته بکوکب
دیگر خواهد که معلوم کند ازین
آلتها بعین مشاهده نباید اما چون اثر
احتیاج واقع میشود که اوضاع مستقلة
و حالات ماضیه معلوم نمایند و نیز در
وقت مطلوب گاه باشد که ابر و باران
مانع رصد شود یا اقتدار و فرصت و
صل بر صد خلنه مغفور باشد زیچ
ساخته شود که از روی آن تغو
پهای هر روزه کواکب سال بسال
استخراج نموده در دفتر ثبت نباید که
در هر وقت معد باشد

it necessary that a table be constructed, by means of which the daily places of the stars being calculated every year, and disposed in a calendar, may be always in readiness.

In the same manner as the geometers and astronomers of antiquity bestowed many years on the practice of observation, thus, for the establishment of a certain method, after having constructed these instruments, the places of the stars were daily observed. After seven years had been spent in this employment, information was received, that about this time observatories had been constructed in *Europe*, and that the learned of that country were employed in the prosecution of this important work; that the business of the observatory was still carrying on there, and that they were constantly labouring to determine with accuracy, the subtleties of this science. For this reason, having sent to that country several skilful persons along with PADRE MANUEL, and having procured the new tables which had been constructed there thirty years * before, and published under the name of

چون مهند سان پیشین و راصدان
شایق سا لهای بسیار در شغل رصد
میسر برده اند بنای طریق معهود نعد
تیار ساختن این آلات هر روز در رصد
کواکب کرده نقید میسند چون کشت
نیکار هفت سال گذشت مسبوع کشت
تحقیق و قایق این علم اند بنا علیه
از اینجا چند کس معقد علم دانای
این فن را بر فاقه منویل پادری بان
سبت فر ستاده زیج جدید آنجا که با
سم لیر نبیه بافیه و سی سال
گذشته که بتاز کی مرتب کشته باز
یچهای سابق آن دیار طلبد اشته ملا
که در نزدیک باین زمان در فرنگ
هم آلات رصدی درست کرده اند و
اکابر انجا و رانایان ایشان باینکار
مشتغل و متوجه اند کار خانه رصد در
انجا هنوز هم جا ریست و همواره در

* JEX-SING finished his tables in the year of the Hegira 1141, or A. D. 1728.

* *Leyyer* *, as well as the European tables anterior to those ; on examining and comparing the calculations of these tables, with actual observation, it appeared there was an error in the former, in assigning the moon's place, of half a degree : although the error in the other planets was not so great, yet the times of solar and lunar eclipses he found to come out later or earlier than the truth, by the fourth part of a *g, burry* or fifteen *puls* †. Hence he concluded that, since in *Europe*, astronomical instruments have not been constructed of such a size, and so large diameters, the motions which have been observed with them may have deviated a little from the truth ; since, in this place, by the aid of the unerring artificer, astronomical instruments have been constructed with all the exactness that the heart can desire ; and the motions of the stars have, for a long period, been constantly observed with them ; agreeably to observation the mean motions and equations were established. He found the calculation to agree perfectly with the observation ; and although even to this day the business of the observatory is

حظر نموده چون محسوب آبرابامر صود لحاظ کرده شده در تقویم قمر تفاوت نیم در جر ظا هر کرد بد اگرچه در سیارات دیگر آنقدر نبود و از منه کسوفات و خسوفات را تاریخ دقیقه یوم که عبارت از پافزده پل با شد پیش و پس یافت دانست که چون در فرنگ آلات رصدی باین برزگی و اقطار نسا خته اند حرکتی که بتوسط آن در یافته اند پاره از تحقیق دور افتاده چون بیا ید کار ساز حقیقی اینجا آلات رصدی بحسب خواهش دل چنانچه باید مرتب شد و تامدت مدید تحقیق حرکات کواکب و رصد آن نبوره از روی آن اوساط و تعدیلات برای آنها مقرر رکست محسوب رابامر مودبی تفاوت یافت و هر چند که هنوز هم کار رصد جاریست زیچیی بنام نامی حضرت ظل الهی مشتمیلر اصوب طرف واحسن و جوه درست کرده شد که چون بدان استخراج تقاویم و رویت اهله و کسوفات و خسوفات و قرانات نمایند اقرب به تحقیق باشد چنانکه اینبعنی بالفعل در رصد خانه مشاهد و مبین میشو دنیاید که ارباب این قن در مقام بله این نعمت عظمی بدعا دوام رولت

* DE LA HIRE published the first edition of his tables in 1687, and the second in 1702.

† Equal to six minutes of our time : an error of three minutes in the moon's place would occasion this difference in time, and as it is improbable that LA HIRE's tables should be inaccurate to the extent mentioned above, of half a degree, I conceive there must be an error in the original.

‘carried on, a table under the name
 ‘of his Majesty, the shadow of God,
 ‘comprehending the most accurate
 ‘rules, and most perfect methods of
 ‘computation, was constructed; that
 ‘so, when the places of the stars, and
 ‘the appearance of the new moons,
 ‘and the eclipses of the sun and moon,
 ‘and the conjunctions of the heavenly
 ‘bodies, are computed by it, they
 ‘may arrive as near as possible to the
 ‘truth, which, in fact, is every day
 ‘seen and confirmed in the observa-
 ‘tory.

‘It therefore behoveth those who
 ‘excel in this art, in return for so
 ‘great a benefit, to offer up their
 ‘prayers for long continuance of the
 ‘power and prosperity of so good a
 ‘King, the safeguard of the earth,
 ‘and thus obtain for themselves a
 ‘blessing in both worlds.’

و خلافت چین باد شاه عالم باه
 مشغول گشته سعادت دارین حاصل
 نیایند

The five observatories constructed by *Jayasinha* still exist, in a state more or less perfect. Having had the opportunity of examining four of the number, I shall subjoin a short description of them:

The observatory at *Dehly* is situated without the walls of the city, at the distance of one mile and a quarter; it lies S. 22 deg. W. from the *Jumrah Musjid*, at the distance of a mile and three quarters, its latitude 28 deg. 37 min. 37 sec. N. * longitude 77 deg. 2 min. 27 sec. E. from Greenwich; it consists of several detached buildings.

1. A large Equatorial Dial, of the form represented at the letter A in Sir *Robert Barker's* description of the Benares observatory (Ph. Transf. vol. LXVII.); its form is pretty entire, but the edges of the gnomon, and those of the circle on which the

* The latitude assigned to it in the *Zeej Mahommedshahy* is 28 deg. 37 min.

degrees were marked, are broken in several places. The length of the gnomon, measured with a cord, I found to be 118 feet seven inches, reckoning its elevation equal to the latitude of the observatory, 28 deg. 37 min.; this gives the length of the base 104 feet one inch, and the perpendicular height 56 feet nine inches; but, the ground being lower at the north end, the actual elevation at the top of the gnomon above it is more than this quantity. This is the instrument called by *Jayasinha*, *semrat Yunter* (the prince of dials). It is built of stone, but the edges of the gnomon and of the arches, where the graduation was, were of white marble, a few small portions of which only remain.

2. At a little distance from this instrument towards the N. W. is another equatorial dial, more entire, but smaller, and of a different construction. In the middle stands a gnomon, which, as usual in these buildings, contains a stair up to the top. On each side of this gnomon are two concentric semicircles, having for their diameters the two edges of the gnomon; they have a certain inclination to the horizon: at the south point, I found it to be twenty-nine degrees (nearly equal to the latitude,) but at some distance from that point it was thirty-three degrees. Hence it is evident, that they represent meridians, removed by a certain angle upon the meridian of the place. On each side of this part is another gnomon, equal in size to the former; and to the eastward and westward of them, are the arches on which the hours are marked. The use of the centre part above described, I have never been able to learn. The length of the gnomon, which is equal to the diameter of the outer circle, is thirty-five feet four inches. The length of a degree on the outer circle is 3.74 inches. The distance between the outer and inner circle is two feet nine inches. Each degree is divided into ten parts, and each of these is subdivided into six parts or minutes.

3. The north wall of this building connects the three gnomons at their highest end, and on this wall is described a graduated semicircle, for taking the altitudes of bodies, that lie due east or due west from the eye of the observer.

4. To the westward of this building, and close to it, is a wall, in the plane of the meridian, on which is described a double quadrant, having for centres the two upper corners of the wall, for observing the altitudes of bodies passing the meridian, either to the north or south of the zenith. One degree on these quadrants measured 2.833 inches, and these are divided into minutes.

5. To the southward of the great dial are two buildings, named

Ustuanab. They exactly resemble one another, and are designed for the same purpose,

purpose, which is to observe the altitude and azimuth of the heavenly bodies, they are two in number, on purpose that two persons may observe at the same time, and so compare and correct their observations.

These buildings are circular, and in the centre of each is a pillar of the same height with the building itself, which is open at top. From this pillar, at the height of about three feet from the bottom, proceed radii of stone horizontally to the circular wall of the building. These radii are thirty in number; the spaces between them are equal to the radii themselves, which measure in breadth as they recede from the pillar, so that each radius and each intermediate space forms a sector of six degrees.

The wall of the building at the spaces between the radii forms recesses internally, being thinner at those places than where it joins the radii. In each of these recesses are two windows, one over the other; and in the sides of the recesses are square holes, at about the distance of two feet, above one another, by means of which a person may climb to the top. On the edges of these recesses are marked the degrees of the sun's altitude, or rather the tangents of those degrees shewn by the shadow of the centre pillar; and numbered from the top, from one degree to forty-five. For the altitude when the sun rises higher, the degrees are marked on the horizontal radii; but they are numbered from the pillar outwards, beginning with one, so that the number here pointed out by the shadow, is the complement of the altitude. These degrees are subdivided into minutes. The spaces on the wall, opposite to the radii, are divided into six equal parts, or degrees, by lines drawn from top to bottom, but these degrees are not subdivided. By observing on which of these the shadow of the pillar falls, we may determine the sun's azimuth. The parts on the pillar opposite to the radii, and the intermediate spaces, in all sixty, are marked by lines reaching to the top, and painted of different colours.

In the same manner that we determine the altitude and azimuth of the sun, we may also observe those of the moon, when her light is strong enough to cast a shadow. Those of the moon at other times, or of a star, may also be found by placing the eye either on one of the radii, or at the edge of one of the recesses in the wall (according as the altitude is greater or less than forty-five degrees,) and moving along till the top of the pillar is in a line with the object. The degree at which the eye is placed will give the altitude, or its complement, and the azimuth is known from the number of the radius to which the eye is applied.

The

The dimensions of the building are as follow :

	Ft.	In.
Length of the radius from the circumference of the centre pillar to the wall ; being equal to the height of the wall above the radii . . .	24	$6\frac{1}{2}$
Length of one degree on the circular wall		$5\frac{3}{4}$
Which gives for the whole circumference	172	6
Circumference of the pillar (measured by a handkerchief carried round it)	17	$0\frac{1}{4}$
Deducted from its coloured divisions measured with compasses . . .	17	$2\frac{1}{4}$

I do not see how observations can be made when the shadow falls on the spaces between the stone radii or sectors ; and from reflecting on this, I am inclined to think, that the two instruments, instead of being duplicates, may be supplementary one to the other ; the sectors in one corresponding to the vacant spaces in the other, so that in one or other an observation of any body visible above the horizon, might at any time be made. This point remains to be ascertained.

6. Between these two buildings and the great equatorial dial, is an instrument called *shamlab*. It is a concave hemispherical surface, formed of mason-work, to represent the inferior hemisphere of the heavens. It is divided by six ribs of solid work, and as many hollow spaces ; the edges of which represent meridians at the distance of fifteen degrees from one another. The diameter of the hemisphere is twenty-seven feet five inches.

The next in point of size and preservation among those which I have had the opportunity of examining, is the observatory at Oujein. It is situated at the southern extremity of the city in the quarter called *Jeyasingpoorah*, where are still the remains of a palace of *Jayasinha*, who was soubahdar of Meliva, in the time of *Mahammed Shab*. The parts of it are as follow :

1. A double mural quadrant, fixed in the plane of the meridian. It is a stone wall, twenty-seven feet high, and twenty-six feet in length. The east side is smooth and covered with plaister, on which the quadrants are described ; on the west side is a stair, by which you ascend to the top. At the top, near the two corners, and at the distance of twenty-five feet one inch from one another, were fixed two spikes of iron, perpendicular to the plane of the wall ; but these have been pulled out. With these points as centres, and a radius equal to their distance, two arcs of 90 degrees are described intersecting each other.

One division in the upper circle is equal to six degrees ; in the second one degree, (the extent contained in the specimens) ; in the third six minutes, and in the fourth one minute.

minute. One of these arcs serves to observe the altitude of any body to the north, and the other of any body to the south of the zenith; but the arc which has its centre to the south, is continued to the southward beyond the perpendicular, and its centre about half a degree, by which, the altitude of the sun, can at all times be taken on this arc. With this instrument *Jayafinba* determined the latitude of Oujein to be $23^{\circ} 10' N$.

Supposing the latitude, here meant, to be (as is most probable) that of the observatory, I was anxious to compare it with the result of my own observations (*Asiatick Researches*, vol. IV.), and, for that purpose, I made an accurate measurement from our camp, at SHAH DAWUL's *durgab*, to the mural quadrant of the observatory. I found the southing of the quadrant from our camp to be one mile 3.9 furlongs, which makes $1' 17''$ difference of latitude.

The latitude of the camp, by medium of two observations, of the sun, is $23^{\circ} 11' 54''$

Deduced from the medium of six observations of fixed stars, taken at RANA KHAN's garden, at different latitude $7'' S$. $23 \quad 11 \quad 45$

From observation of the sun at the same place $23 \quad 11 \quad 37$

From two observations of , taken at the house in town, at different latitude, $32'' S$. $23 \quad 11 \quad 28$

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Latitude of *Shah Dawul's* *durgar*, by medium of all observations $23 \quad 11 \quad 41$

Difference of latitude, camp and observatory $1 \quad 17$

Gives the latitude of the observatory $23 \quad 10 \quad 24$

A closer coincidence could not be expected, especially as no account is made of seconds in any of the latitudes given in the *Zeej Mahommedshahy*. But, if farther refinement were desired, we might account for the difference, by the Hindu observers not having made any allowance for refraction. Thus, if we suppose the sun's altitude to have been observed, when on the equator, the result will be as follows:

Latitude of the observatory $23^{\circ} 10' 24''$

Its complement, being the true altitude of the sun on the equator $66 \quad 49 \quad 36$

Refraction 24

Sun's apparent altitude $66 \quad 50 \quad 0$

Latitude of the observatory from observation of the sun upon the equator without allowing for refraction $23 \quad 10 \quad 0$

But

But (besides that I do not pretend, that the mean of my own observations can be relied on, to a less quantity than fifteen seconds,) when we consider, that a minute on the quadrant of the observatory is hardly .09 of an inch, without any contrivance for subdivision, we shall find it needless to descend into such minuteness: and as *Jayasinha* had European observers, it is not likely the refraction would be neglected, especially as the *Zeej Mahommedshahy* contains a table for that purpose. This table is an exact copy of M. DE LA HIRE's, which may be seen in the *Encyclopedie*, art. Refraction.

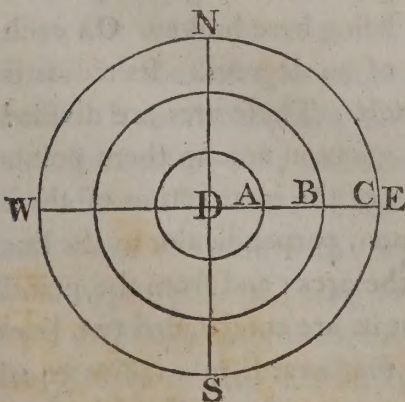
This instrument is called, *Yam-utter-bbitti-yunter*. With one of the same kind at Dehly, (No. 4, Dehly observatory,) in the year 1729, *Jayasinha* says, he determined the obliquity of the ecliptic to be $23^{\circ} 28'$. In the following year (1730) it was observed by GODIN $23^{\circ} 28' 20''$.

2. On the top of the mural quadrant is a small pillar, the upper circle of which being two feet in diameter, is graduated for observing the amplitude of the heavenly bodies, at their rising and setting; it is called *Agra Yunter*. The circles on it are very much effaced.

3. About the middle of the wall the parapet to the eastward is increased in thickness, and on this part is constructed a horizontal dial called *Puebha Yunter*. Its length is two feet four inches and a half, but the divisions on it are almost totally effaced.

4. *Dig ansa Yunter*, a circular building, 116 feet in circumference. It is now roofed with tiles, and converted into the abode of a Hindu deity, so that I could not get access to examine its construction; but the following account of it is delivered in the *Sem'rat Siddhanta*, an astronomical work composed under the inspection of *Jayasinha*.

On a horizontal plane describe the three concentric circles A B C, and draw the north, south, east, and west lines, as in the figure. Then, on A build a solid pillar,



of any height at pleasure; on B build a wall, equal in height to the pillar at A; and on C a wall of double that height. From the north, south, east, and west points, on the top of the wall C stretch the threads N. S. W. E. intersecting each other in the point D, directly above the centre of the pillar A. To the centre of that pillar fasten a thread, which is to be laid over the top of the wall C, and to be stretched by a weight suspended to the other end of it.

The

The use of this instrument is for observing the azimuth (*dig-anfa*) of the heavenly bodies; and the observations with it are made in the following manner: The observer standing at the circumference of the circle B, while an assistant manages the thread moveable round the circle C, places his eye so that the object to be observed, and the intersection of the threads N.S. W.E. may be in one vertical plane, while he directs the assistant to carry the moveable thread into the same plane. Then the degrees on the circle C cut off by the moveable thread, give the azimuth required. In order to make this observation with accuracy, it seems necessary that the point D, and the centre of the pillar A, should be connected by a thread perpendicular to the horizon; but no mention is made of this in the original description.

5. *Náree-wila-yunter*, or equinoctial dial, is a cylinder, placed with its axis horizontally, in the north and south line, and cut obliquely at the two ends, so that these ends are parallel to the equator (*Náree-wila*). On each of these ends a circle is described, the diameter of which in this instrument is 3 feet 7 inches and a half. These are divided into *g, burries*, of six degrees, into degrees and subdivisions, which are now effaced. In the centre of each circle, was an iron pin (now wanting) perpendicular to the plane of the circle, and consequently parallel to the earth's axis. When the sun is in the southern signs, the hours are shewn by the shadow of the pin in the south, and when he is in the northern signs by that to the north. On the meridian line on both sides are marked the co-tangent, to a radius equal to the length of the centre pin. The shadow of the pin on this line at noon, points out the sun's declination.

6. *Semrát-yunter*, also called *Náree-wila*, another form of equinoctial dial. (Fig. A of Sir ROBERT BARKER's plate.) It consists of a gnomon of stone, containing within it a stair. Its length is 43 feet 3.3 inches; height from the ground, at the south end, 3 feet 9.7 inches; at the north end 22 feet, being here broken. On each side is built an arc of a circle, parallel to the equator, of 90 degrees. Its radius is 9 feet 1 inch; breadth from north to south 3 feet 1 inch. These arcs are divided into *g, burries* and subdivisions; and the shadow of the gnomon among them points out the hours. From the north and south extremities of the intersection of these arcs with the gnomon, are drawn lines upon the gnomon, perpendicular to the line of their intersection. These are consequently radii of the arcs; and from the points on the upper edge of the gnomon where these lines cut it, are constructed two lines of tangents, one to the northward, and another to the southward, to a radius equal to that of the arc. To find the sun's declination, place a pin among these divisions,
perpendicular

perpendicular to the edge of the gnomon ; and move it backwards and forwards, till its shadow falls on the north or south edge of the arc below : the division on which the pin is then placed, will shew the sun's declination. In like manner, to find the declination (*kránti*) of a star, and its distance in time from the meridian (*net-gburry*) place your eye among the divisions of the arc, and move it till the edge of the gnomon cut the star, while an assistant holds a pin among the divisions on the edge of the gnomon, so that the pin may seem to cover the star. Then the division on the arc at which the eye was placed, will shew the distance of the star from the meridian ; while the place of the pin, in the line of tangents, will shew its declination.

At *Matra* the remains of the observatory are in the fort, which was built by *Jayasinha* on the bank of the *Jumna*. The instruments are on the roof of one of the apartments. They are all imperfect, and in general of small dimensions.

1. An Equinoctial Dial, being a circle nine feet two inches in diameter, placed parallel to the plane of the equator, and facing northwards. It is divided into *g,burries* of six degrees each : each of these is subdivided into degrees, which are numbered as *puls* 10, 20, 30, 40, 50, 60 : lastly, each subdivision is farther divided into five parts, being 12 minutes, or two *puls*. In the centre is the remains of the iron style, or pin, which served to cast the shadow.

2. On the top of this instrument is a short pillar, on the upper surface of which is an amplitude instrument (like that described No. 2, *Oujein* observatory, called *Agra-yunter*) ; but it is only divided into octants. Its diameter is two feet five inches.

3. On the level of the terrace is another amplitude instrument, divided into sixty equal parts. Its diameter is only thirteen inches.

4. On the same terrace is a circle, in the plane of the horizon, with a gnomon similar to that of a horizontal dial, but the divisions are equal, and of six degrees each. It must therefore have been intended for some other purpose than the common horizontal dial, unless we may conceive it to have been made by some person who was ignorant of the true principles of that instrument. This could not have been the case with *Jayasinha* and his astronomers ; but the instrument has some appearance of being of a later date than most of the others ; they are all of stone or brick, plaistered with lime, in which the lines and figures are cut ; and the plaister of this instrument, though on the level of the terrace, and conse-

quently more exposed to accidents than the others, is the freshest and most entire of all.

5. On the east wall, but facing westward, is a segment, exceeding a semicircle, with the arch downwards. It is divided into two parts, and each of these into fifteen divisions. Its diameter is four feet. On the west wall, facing eastwards, is a similar segment, with the arch upwards, divided in the same way as the former. Its diameter is seven feet nine inches.

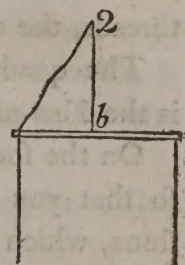
The observatory at *Benares* having been described by Sir ROBERT BARKER, and Mr. WILLIAMS, I have only a few remarks to offer, in addition to the account delivered by those gentlemen.

I. A (of Sir Robert Barker's plate) is the *Semrat-yunter*, described *Debly* observatory, No. I. and *Oujein* observatory, No. VI. The arcs on each side are carried as far as ninety-six degrees, which are subdivided into tenth parts. Each space of six degrees is numbered from the bottom of the arc towards the top, sixteen in each arc. Each of these is equal to twenty-four minutes of our time, which answers to the *Hindu* astronomical *g,burry*. Besides the stair contained in the gnomon, one ascends along a limb of each arc. The dimensions have been given by Mr. Williams, with an accuracy that leaves me nothing to add on that head. With respect to the reason of the name I am somewhat in doubt. It may have been given from its eminent utility; but the Rajah had conferred on one of his principal *Pandits* the title of *Semrat* or Prince; and perhaps this instrument, as well as the *Semrat-siddhanta*, may have been denominated in compliment to him; as another instrument (which I have not been able to find out) was called *Jey-pergas* in allusion to the Rajah's name.

B is the equinoctial dial or *Naree-wila* of No. V. *Oujein* observatory. The name given by the *Pandits* to Mr. Williams (*gentu-rage*) probably ought to be *yunter* or *yunter-raj*, q. d. the royal dial.

C is a circle of iron, faced with brass, placed between two stone pillars, about the height of the eyes, and revolving round one of its diameters, which is fixed parallel to the axis of the world. The breadth of the rim of the circle is two inches, the thickness of iron is one inch, of brass three tenths of an inch. The diameter mentioned before is not the same breadth and thickness with the rim. The limb is divided into 360 degrees, each degree into four equal parts; and there are larger divisions, containing six degrees each. The size of a degree is .3

of an inch. Round the centre revolves an index of brass; the end of which is formed as in the margin; and the line A B, which produced, passes through the centre of the circle, marks the degrees. From this description, it appears that the circle when placed in a vertical position, is in the plane of the meridian of Benares; when it declines from that position, it represents some other meridian. Were there any contrivance for measuring the quantity of this deviation, it would answer the purpose of an equatorial instrument, for determining the place of a star, or any other phenomenon in the heavens. For by moving the circle and its index, till the latter points exactly to the object, the degrees of deviation from the vertical position would mark the distance of the object from the meridian; and the degrees on the circle, intersected between the index and the diameter, which is perpendicular to that on which it revolves, would shew its declination. This last may indeed be observed with the instrument in its present state; but I am inclined to think, that there has been some contrivance for the former part also; having been informed by a learned Pandit, that in two rings of this kind in the *Jeyanagar* observatory such contrivance actually exists. On one of the pillars that support the axis, a circle is described parallel to the equator, divided into degrees and minutes; to the axis of the moveable circle is fixed an index, which is carried round by the motion of the circle; and thus points out, among the divisions on the immoveable circle, the distance from the meridian of the body to be observed.



Observations with this instrument cannot have admitted of much accuracy, as the index is not furnished with sights; and the pin by which it is fixed to the centre of the circle is so prominent, that the eye cannot look along the index itself.

The literal meaning of the *Sanscrit* term *Kranti-writ*, is *circle of declination*, which may, with some propriety, have been applied to this instrument, as mentioned by Mr. *Williams*. But this name is, in the *Hindu* astronomical books, peculiarly appropriated to the ecliptic; and as the *Sem'rat Sid-dhanta* contains the description of an instrument called *Kranti-writ-yunter*, wherein a circle is made, by a particular contrivance, to retain a position parallel to the ecliptic, I am inclined to believe that the appellation has been erroneously given by the ring above described.

D is the *Dig-anfa-yunter*, No. 4. Oujein observatory. The "iron pins," with small holes in them, on the top of the outer wall, at the four cardinal "points,"

are

are undoubtedly as the Pandits informed Mr. *Williams* for stretching the wires or threads, the use of which is fully explained above.

The quadrant described by Sir *Robert Barker*, but not represented in his plate, is the *Ram-utter-bbitti-yunter*, described *Oujein* observatory, No. 1.

On the south-east corner of the terrace is a small platform raised above its level, so that you mount upon it by a flight of steps. Upon this we find a circle of stone, which Mr. *Williams* found to be six feet two inches in diameter, in a position inclined to the horizon. Mr. *Williams* says it fronts the west, and that he could not learn the use of it.

I dare not, without further examination, oppose to this what I find in my notes, taken in 1786, that it stands in the plane of the equinoctial. If that is the case it has been clearly intended for a dial of the same kind as fig. B. and probably, as Mr. *Williams* says, never completed, as I found no appearance of graduation on the circle.

Having described those among the observatories constructed by *Jayasimba*, which have fallen under my observation, I proceed to give some account of the tables intitled *Zeej Mahommedshaby*. But here I should regret that, not having access to the *Tabula Ludovicia* of *La Hire*, I am unable to determine, whether those of *Jayasimba* are merely taken from the former, by adapting them to the *Arabian* lunar year; or, whether, as he asserts, they are corrected by his own observations; did not the zeal for promoting enquiries of this nature, manifested in the queries proposed to the Asiatick Society by Professor PLAYFAIR (to whom I intend to transmit a copy of the *Zeej Mahommedshaby*) convince me, that he will ascertain, better than I could have done, the point in question.

I. TABLES of the SUN consist of

1. Mean longitudes of the sun, and of his apogee, for current years of the *Hejira* from 1141 to 1171 inclusive.
2. Mean motions of the sun, and of his apogee, for the following periods of *Arabian* years, viz. 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 600, 900, 1200.
3. Mean motions of the Sun, and of his apogee, for *Arabian* months.
4. The same for days from 1 to 31.
5. The same for hours, 24 to a natural day; but these are continued to 61; so that the numbers answering to them, taken for the next lower denomination, answer for minutes.
6. The same for years complete of the *Hejira*, from 1 to 31.

7. The

7. The equation of time.

8. The sun's equation, or equation of the orbit. Argument, his *mean anomaly*, corrected by the equation of time. If this is in the northern signs, the equation is to be subtracted from his place corrected by the equation of time; if in the southern, to be added.

9. The sun's *distance*, his *horary motion*, and *apparent diameter*. Argument, his equated anomaly.

II. TABLES of the MOON.

1—6. Contain the mean longitudes and motions of the *Moon*, of her *apogee* and *node*, for the same period, as the corresponding tables of the sun.

7. The moon's first *equation*, or *elliptic equation*. Argument, her mean anomaly corrected by the equation of time, to be applied to her place; corrected by the equation of time, in the same manner as the equation of the sun to his.

8. The moon's *second equation*, is to be applied in three places; viz. to her *longitude* and *apogee*, corrected by the first equation and to the node. It has two arguments.

1. From the moon's longitude once equated, subtract the sun's equated place. The signs and degrees of this are at the top and bottom of the table.

2. From the moon's place once equated, subtract the place of the sun's apogee. The signs and degrees of this are on the right and left of the table.

The equation is found at the intersection of the two arguments. If the second argument is in the first half of the zodiac, and the first argument in the first or fourth quarter, the equation is to be added; in the second or third, to be subtracted. But if the second argument is in the second half of the zodiac, and the first argument in the first or fourth quarter, it is subtractive; and in the second or third quarter, it is additive.

9. The moon's *third equation*, has also two arguments;

1. From the moon's place, corrected by the second equation, subtract the sun's true longitude; the signs and degrees of this are at the top and bottom of the table.

2. The moon's mean anomaly, corrected by the second equation; the signs and degrees are on the right and left of the table.

The equation is found at the intersection of the arguments; and is to be applied to the moon's longitude twice equated, by addition or subtraction, as expressed in the table, to give her true place in the *felekmayee* or in her orbit.

10. Equation of the node.

Argument,

Argument, the moon's longitude thrice equated, diminished by that of the sun. The equation is to be added to, or subtracted from, the place of the node, as expressed in the table.

In the same table is a second column, entitled *correction of the node*. The numbers from this are to be reserved and applied farther on.

11. The moon's fourth equation, or reduction from her *orbit*, to the *ecliptic*; From the moon's longitude thrice equated, subtract the equated longitude of the node, the remainder is the *argument of latitude*, and this is also the argument of the fourth equation; which is to be subtracted, if the argument is in the first or third quarter, from the moon's place in her *orbit*; and if the argument is in the second or fourth quarter, added to the same to give her longitude in the *mumussil*, i. e. reduced to the ecliptic.

12. Table of the moon's latitude, contains two columns, *latitude* and *adjustment of the latitude*. Both of these are to be taken out by the signs and degrees of the argument of latitude.

Multiply into one another, the correction of the node and the adjustment of the latitude, and add the product to the latitude of the moon, as taken out of the table, to give the latitude correct; which is northern if the argument of latitude be in the first half of the zodiac, and *vice versa*.

III. TABLES OF SATURN.

1—6. Contain the mean longitudes and motions of *Saturn*, of his apogee and node, for the same periods as the corresponding tables of the Sun and Moon.

7. First equation. Argument, *Saturn's* mean anomaly; if in the first six signs, subtraction, and *vice versa*.

8. Equation of the node. Argument, the argument of latitude, found by subtracting the longitude of the node, from that of *Saturn* once equated; additive in the first and fourth quarters, subtractive in the second and third.

9. *Saturn's* second equation, or reduction of his orbit to the ecliptic. Argument, the corrected argument of latitude or difference between *Saturn's* longitude once equated and the equated longitude of the node. This equation to be added to, or subtracted from, the planet's longitude once equated, (or his place in his orbit,) in the same cases as indicated in the corresponding table of the moon.

10. Table of *Saturn's* inclination. Argument, the argument of latitude.

11. Table of *Saturn's* distance. Argument, his mean anomaly corrected by the second equation.

IV. TABLES

IV. TABLES of JUPITER, correspond with those of *Saturn*, excepting that there is no equation of the node, so that they are only ten in number.

V. VI. VII. Tables of MARS, VENUS, and MERCURY, agree in number, denomination, and use, with those of *Jupiter*.

For several parts of the foregoing information, I am indebted to the grandson of a *Pandit*, who was a principal co-adjutor of *Jayasinha* in his astronomical labours. The Rajah bestowed on him the title of *Jyotishray*, or *Astronomer-royal*, with a *jageer* which produced 5000 rupees of annual rent. Both of these descended to his posterity; but from the incursions and exactions of the *Mabrattas* the rent of the *jageer* land was annihilated. The young man finding his patrimonial inheritance reduced to nothing, and that science was no longer held in estimation, undertook a journey to the *Decan*, in hopes that his talents might there meet with better encouragement; at the same time, with a view of visiting a place of religious worship on the banks of the *Nerbuddah*. There he fell in with RUNG RAW APPAH, dewan of the powerful family of POWAR, who was on his march to join ALY-BAHADUR in *Bundelcund*. With this chief the *Pandit* returned, and arrived at *Oujein* while I was there. This young man possessed a thorough acquaintance with the Hindu astronomical science contained in the various *Siddhantas*, and that not confined to the mechanical practice of rules, but founded on a geometrical knowledge of their demonstration; yet he had inherited the spirit of *Jayasinha* in such a degree, as to see and acknowledge the superiority of European science. In his possession I saw the translation into *Sanscrit* of several European works, executed under the orders of *Jayasinha*, particularly EUCLID's *Elements* with the treatises of plain and *spherical trigonometry*, and on the construction and use of logarithms, which are annexed to CUNN's or COMMANDINE's edition. In this translation, the inventor is called DON JUAN NAPIER, an additional presumption that *Jayasinha's* European astronomers were of the Portuguese nation. This, indeed, requires little confirmation, as the son of one of them, DON PEDRO DE SYLVA, is still alive at *Jayanagar*; and *Pedro* himself, who was a physician as well as astronomer, has not been dead more than five or six years. Besides these, the *Pandit* had a table of logarithms, and of logarithmic sines and tangents to seven places of figures; and a treatise on conic sections. I have always thought, that after having convinced the Eastern nations of our superiority in policy and in arms, nothing can contribute more to the extension of our national glory than the diffusion among them of a taste for European science. And as the means of promoting so desirable an end, those
among

among the natives who had penetration to see, and ingenuously to own, its superior accuracy and evidence, ought to be cherished. Among those of the Islamic faith, TUFFUZZUL HUSSEIN KHAN, who, by translating the works of the immortal NEWTON, has conducted those imbued with Arabick literature to the fountain of all physical and astronomical knowledge, is above my praise. I hoped that the *Pandit Jyotish Ray*, following the steps of his ancestors and of his illustrious master, might one day render a similar service to the disciples of *Brahma*. But this expectation was disappointed by his sudden death at *Jayanagar* soon after our departure from *Oujein*: and with him the genius of *Jayashinba* became extinct. URANIA fled before the brazen-fronted *Mars*, and the observatory was converted into an arsenal and foundery of cannon.

The Hindu astronomy, from the learned and ingenious disquisitions of Mr. BAILY and Professor PLAYFAIR, appears to carry internal marks of antiquity which do not stand in need of confirmation by collateral evidence. Else, it is evident, from the foregoing account, that such could not be derived from the observatories which have been described by travellers; those being of modern date, and as probably of European as of Hindu construction. The assistance derived by *Jayashinba* from European books also inclines me to think, that the treatise entitled *Cshetradersa*, which was inspected by *Captain WILFORD's Pandit*, (*Asiat. Ref. vol. IV.*) was not confined to geometrical knowledge, of purely *Brahminical origin*.

XVI.

DESCRIPTION OF A SPECIES OF MELOE, AN INSECT OF THE FIRST OR COLEOPTEROUS ORDER IN THE LINNEAN SYSTEM: FOUND IN ALL PARTS OF BENGAL, BEHAR, AND OUDE; AND POSSESSING ALL THE PROPERTIES OF THE SPANISH BLISTERING FLY, OR MELOE VESICATORIUS.

By Captain HARDWICKE.

Communicated by Mr. W. HUNTER.

ANTENNÆ MONILIFORM, short, consisting of eleven articulations, increasing in size from the second to the apex; the first nearly as long as the last; each a little

little thicker upwards, than at the base, and truncated, or as if cut off, the last excepted, which is egg-form.

Palpi—four, inequaled, clubbed, the posterior pair of three, and the anterior, of two articulations.

Maxillæ or jaws—four, the exterior horney, slightly curved inwards, three toothed—the two inferior teeth very small; the exterior pair, compressed and brush-like.

Head, gibbous; eyes prominent, large, reticulated; labium or upper lip, hard, emarginated.

Thorax—convex above, broader towards the abdomen, and encompassed by a narrow marginal line.

Elytra, crustaceous, the length of the abdomen, except in flies pregnant with eggs, when they are shorter by one ring; convex above, concave beneath; yellow, with three transverse, black, irregular, undulated bands; the one at the apex broadest, and that at the base dividing the yellow longitudinally, into two spots; porcated or ridged; the ridges longitudinal and parallel to the future; in number, three equal, one unequal, the ridges not very prominent.

Alæ or wings—membraneous, a little exceeding the elytra in length, and the ends folded under.

The tarsi of the two first pair of feet consists of five articulations; and of the posterior pair, four only.

Every part of the insect, excepting the wings and elytra, is black, oily to the touch, and covered more or less with dense hairs; a few scattered hairs are also evident on the lytra. All the crustaceous parts of the insect are pitted minutely. It is about the bigness of the *Meloë Proscarabæus* of LINN. and a full grown one, when dry and fit for use, is to the *M. Vesicatorius* in weight as $4\frac{1}{2}$ to 1.

They come into season with the periodical rains, and are found from the month of July to the end of October, feeding on the flowers of *cucurbitaceous* plants, but more frequently on the species of *Cucumis* called by the natives *Turiey*; with a cylindrical, smooth, ten angled fruit. Also on the *Raam Turiey*; or *Hibiscus Esculentus Hibiscus*, *Rosa Sensis*—and in jungles where these plants are not to be found, they are to be met with on two or more species of *Sida*, which flourish in that season.

In the failure of flowers, they will feed on the leaves of all these plants, ex-

cept the *Turkey*—which I have not observed them eat. They are great devourers, and will feed as freely in confinement as at large.

In September they are full of eggs, which seems to be the best state in which they can be taken for medical use, at that time abounding more abundantly in an acrid yellow oil, in which, probably, resides their most active property.

This fluid seems the animal's means of rendering itself obnoxious to others; for, on the moment of applying the hand to seize it, it ejects a large globula from the knee joint of every leg, and this, if suffered to dry on the fingers, soon produces an uncommon tingling in the part, and sometimes a blister. This is the only inconvenience attending the catching of them, for they make no resistance: on the contrary, they draw in the head towards the breast as soon as touched, and endeavour to throw themselves off the plant they are found on.

The female produces about 150 eggs, a little smaller than a caraway seed, white and oblong oval. Their larvæ I have not seen, therefore as yet know not where they deposit their eggs.

Their flight from plant to plant is slow, heavy, and with a loud humming noise, the body hanging almost perpendicularly to the wings.

They vary in the colour of the elytra, from an orange red to a bright yellow; but I do not find this variety constitutes any difference in sex.

The natives of this part of the country know the insect by the name of *tel-eene*, expressive of its oily nature: they are acquainted with its blistering properties, but I do not find they make any medicinal use of it.

The drawing which accompanies this description, exhibits the fly of its natural size.

Futte-Ghur, September, 1796.

REPORT ON THE MELOE, OR LYTTA.

By W. HUNTER, Esq.

THE circumstance respecting your new species of MELOE or *Lytta*, which I lately had occasion to observe, was shortly as follows:

Tincture of them was directed as an external application to a man's arm, which was paralytic in consequence of rheumatism. On the first application several
vesications

vesications were raised, as completely distended with serum, as if a blister had been applied. I am not particularly informed, what proportion the flies bore to the menstruum; but, I think, it was something greater than that directed by the *London* college for the tincture of the officinal kind.

March 9th, 1796.

REPORT ON THE EFFECT PRODUCED BY A SPECIES OF MELOE,
FOUND IN BENGAL, BEHAR, AND OUDE.

By W. R. MONROE, Esq.

I RECEIVED your packet containing the specimens of the new blistering fly, a few days ago, whilst I was busily employed in preparations for my departure from this station. I lost no time, however, in making a trial of their efficacy on three different patients who required blistering. They succeeded in each trial; though the effect was in none produced completely in less than ten hours; and the vesications even then were filled with a serum rather gelatinous than fluid.

As far as these few trials authorize a conclusion, we may safely consider them a valuable substitute for the cantharides; though I should think they will not, in general, be found so active as the *Spanish* fly, in its most perfect state of preservation. Captain HARDWICKE has certainly, however, made a most useful addition to our *Asiatick Materia Medica*; and, he may rely on it, that if I should inadvertently mention the discovery, I shall not fail to give him also the merit he is so fairly entitled to for it. The country people, I find, give the fly different names, so that there are, I suppose, many species of it, the most efficacious of which he will, in his account of it, particularize.

REFERENCES.

- A. A full grown insect of its natural size.
- B. The same reversed, to show the under part of the body and limbs.
- C. The eggs.
- D. An elytron of another fly, to show the difference of colour and spots at the base.

E. A.

- E. A wing displayed.
- F. The head magnified.
- G. The labium or lip.
- H. The horny or exterior jaws.
- I. The hairy interior ditto.
- K. The posterior pair or palpi.
- L. The anterior or lesser ditto.

XVII.

A COMPARATIVE VOCABULARY OF SOME OF THE LANGUAGES
SPOKEN IN THE BURMA EMPIRE.

By FRANCIS BUCHANAN, M. D.

TO judge from external appearance, that is to say, from shape, size, and feature, there is one very extensive nation that inhabits the east of *Asia*. It includes the eastern and western *Tartars* of the *Chinese* authors, the *Calmucs*, the *Chinese*, the *Japponefe*, the *Malays*, and other tribes inhabiting what is called the Peninsula of *India* beyond the *Ganges*; and the islands to the south and east of this, as far at least as *New Guinea*. This, however, is speaking in a very general sense, many foreign races being intermixed with the nation, and perhaps many tribes belonging to it being scattered beyond the limits I have mentioned.

This nation may be distinguished by a short, squat, robust, fleshy stature, and by features highly different from those of an *European*. The face is somewhat in shape of a lozenge, the forehead and chin being sharpened, whilst at the cheek bones it is very broad: unless this be what is meant by the conical head of the *Chinese*, I confess myself at a loss to understand what that is. The eyebrows, or supercillary ridges, in this nation, project very little, and the eyes are very narrow, and placed rather obliquely in the head, the external angles being the highest. The nose is very small, but has not, like that of the negro, the appearance of having been flattened; and the apertures of the nostrils, which in the *European* are linear and parallel, in them are nearly circular and divergent; for the *septum marmum* being much thickest towards the face, places them entirely out of the parallel

rallel line. The mouths of this nation are in general well shaped ; their hair is harsh, lank, and black. Those of them that live even in the warmest climates, do not obtain the deep hue of the negro or *Hindu* ; nor do such of them as live in the coldest countries, acquire the clear bloom of the *European*.

In adventitious circumstances, such as laws, customs, government, political maxims, religion, and literature, there is also a strong resemblance among the different states composing this great nation ; no doubt arising from the frequent intercourse that has been among them.

But it is very surprising, that a wonderful difference of language should prevail. Language of all adventitious circumstances, is the surest guide in tracing the migrations and connections of nations ; and how in a nation, which bears such strong marks of being one, radically the same, languages totally different should prevail, I cannot, at present, pretend to conjecture : but, in order to assist, in accounting for the circumstance, having, during my stay in the *Burma* empire, been at some pains to collect a comparative vocabulary of such of the languages spoken in it as opportunity offered, I have thought it might be curious to publish it. I am sensible of its many imperfections : but it is a beginning, which I hope hereafter to make more complete ; and, where I fail, others, without doubt, will be more successful.

In all attempts to trace the migrations and connections of tribes by means of language, it ought to be carefully remembered, that a few coincidences, obtained by searching through the whole extent of two dictionaries, is by no means the least affinity ; for our organs being only capable of pronouncing a certain, and that a very limited number of sounds, it is to be expected, according to the common course of chance, that two nations, in a few instances, will apply the same sound to express the same idea. It ought also to be observed, that in tracing the radical affinities of languages, terms of art, men's names, religious and law phrases, are, of all words, the most improper ; as they are liable constantly to be communicated by adventitious circumstances from one race of men to another. What connection of blood have we, *Europeans*, with the *Jews*, from whom a very great proportion of our names and religious terms are derived ? Or what connection have the natives of *Bengal* with the *Arabs* or *English*, from whom they have derived most of their law and political terms ? With the former they have not even had political connection ; as the phrases in question were derived to them through the medium of the *Persians* and *Tartars*. Two languages, therefore, ought only to be considered.

considered as radically the same, when, of a certain number of common words chosen by accident, the greater number have a clear and distinct resemblance. A circumstance, to which, if antiquarians had been attentive, they would have been saved from the greater part of that etymological folly, which has so often exposed their pleasing science to the just ridicule of mankind.

In the orthography I have had much difficulty. Two people will seldom write in the same way, any word or language with which they are unacquainted. I have attempted merely to convey to the *English* reader, without any minute attention to accent, or small variations of vowels, a sound similar to that pronounced; nor have I paid any attention to the orthography of the natives. This, in the *Burma* language, I might have done; but as I am not acquainted with the writing of the other tribes, I thought it the safest method to express the sound merely. The following scheme of vowels, in order to read my vocabulary correctly, must be kept in mind:

A—pronounce as in the *English* words bad, bat, had, hat.

Aw—or broad *Scotch* a, as in bawd.

Ay—as the *English* a, in babe, bake, bare; day, pay, hay.

Ee—in order to avoid confusion, I use for the *English* e; as they have exactly the same sound.

Æ—I use for the *French* and *Scotch* é open.

U—I always sound as in the word duck; using oo for its other sound, as in book.

Ou—I sound as in found, bound.

Au—is nearly similar, but broader, a sound scarcely to be met with in the *English* language.

Ei—I use as the vowel in bind, find, &c.

Ai—nearly the same but broader. }

Oe—I use to express the *French* u. } These two sounds, as far as I remember, are not used by the *English*.

It is to be observed, that the pronunciation, among all these tribes, to a stranger appears exceedingly inarticulate. In particular they hardly ever pronounce the letter R; and T, D, TH, S, and Z, are almost used indiscriminately. The same may be said of P and B. Thus the word for water which the *Burmas* universally pronounce yoe, is written rae; and the *Palli* name for their capital city *Amarapoora*, is commonly pronounced *Amaapooya*. This indistinct pronunciation probably arises from the excessive quantity of betel, which they chew. No man of rank ever speaks

speaks without his mouth being as full as possible of a mixture of betel and nut, tobacco, quicklime, and spices. In this state he is nearly deprived of the use of his tongue in articulation, which, although not the only organ of speech, is yet of such use in articulation, as to be commonly considered as such. Hence it is, that an indistinct articulation has become fashionable, even when the tongue is at liberty.

I shall begin with the *Burma* language as being at present the most prevalent. There are four dialects of it, that of the *Burma* proper, that of *Arakan*, that of the *Yo*, and that of *Tenasserim*.

The people called by us *Burmas*, *Barmas*, *Vermas*, *Brimmas*, &c. stile themselves *Myammau*. By the people of *Pegu*, they are named *Pummay*; by the *Karaya*, *Yoo*; by the people of *Cussay*, *Awaw*; by the *Cussay shau*, *Kammau*; by the *Chinese* of *Yunnan*, *Laumeen*; and by the *Aykobat*, *Anwa*. They esteem themselves to be descended from the people of *Arakan*, whom they often call *Myammau gye*, that is to say, great *Burmas*.

The proper natives of *Arakan*, call themselves *Yakain*, which name is also commonly given to them by the *Burmas*. By the people of *Pegu* they are named *Takain*. By the *Bengal Hindus*, at least by such of them as have been settled in *Arakan*, the country is called *Rossawn*, from whence, I suppose, Mr. RENNELL has been induced to make a country named *Roshawn* occupy part of his map, not conceiving that it would be *Arakan*, or the kingdom of the *Mugs*, as we often call it. Whence this name of *Mug*, given by *Europeans* to the natives of *Arakan*, has been derived, I know not; but, as far as I could learn, it is totally unknown to the natives and their neighbours, except such of them as by their intercourse with us have learned its use. The *Mahomedans* settled at *Arakan*, call the country *Rovingaw*, the *Persians* call it *Rekan*. The third dialect of the *Burma* language is spoken by a small tribe called *Yo*. There are four governments of this nation, situated on the east side of the *Arakan* mountains, governed by chiefs of their own, but tributary to the *Burmas*.

The fourth dialect is that of what we call the coast of *Tenasserim*, from its city now in ruins, whose proper name was *Tanayntharee*. These people, commonly called by the *Burmas*, *Dawayza* and *Byeitza*; from the two governments of which their country consists, have most frequently been subjected to *Siam* or *Pegu*; but at present they are subjects of the *Burma* king.

Although the dialects of these people, to one another, appear very distinct, yet the

the difference consists chiefly in such minute variations of accent as not to be observable by a stranger. In the same manner as an *Englishman* at first is seldom able to distinguish even the *Aberdeen* accent from that of the other shires of Scotland, which to a Scotchman appears so different; so, in most cases, I could perceive no difference in the words of these four languages, although among the *Burmas*, any of the provincials, speaking generally, produced laughter, and often appeared to be with difficulty understood. I shall, therefore, only give a list of the *Burma* words; those of the other dialects are the same, where difference is not mentioned.

I. <i>English.</i>	<i>Myammaw.</i>	<i>Yakain.</i>	<i>Tanayntharee.</i>	<i>Yo.</i>
1 Sun	Nay	—	—	—
2 Moon	La	—	—	—
3 Star	Kyee	Kyay	—	Kay
4 Earth	Myacgyee	—	—	—
5 Water	Yæ	Ree	—	Rae
6 Fire	Mee	—	—	—
7 Stone	Kiuk	—	—	Kiukay
8 Wind	Læ	Lee	—	—
9 Rain	Mo	—	—	—
10 Man	Loo	—	—	—
11 Woman	Meemma	—	—	—
12 Child	Loogalay	*Loofhee	—	—
13 Head	Kaung	—	—	—
14 Mouth	Parat	—	—	—
15 Arm	Læmmaung	—	—	—
16 Hand	Læk	—	—	Laik
17 Leg	Kæthalour	—	—	Saloongfa
18 Foot	Kiæbamo	—	—	—
19 Beast	Taraitram	—	—	—
20 Bird	Hugæk	—	—	Knap
21 Fish	Ngaw	—	—	—
22 Good	Kaung	—	—	—
23 Bad	Makaung	—	—	—
24 Great	Kyee	—	—	—

* Literally, a little man.

English.	Myammaw.	Yakain.	Tanayntbaree.	Yo.
25 Little	Ngay	—	—	—
26 Long	Shay	—	—	Shæ
27 Short	Ato	—	—	To
28 One	Teet	—	—	—
29 Two	Hueet	—	—	—
30 Three	Thoum	—	—	—
31 Four	Lay	—	—	—
32 Five	Ngaw	—	—	—
33 Six	Kiouk	—	—	—
34 Seven	Kuhneet	—	—	—
35 Eight	Sheet	—	—	—
36 Nine	Ko	—	—	—
37 Ten	Tazay	—	—	—
38 Eat	Zaw	—	—	—
39 Drink	Thouk	—	—	—
40 Sleep	Eit	—	—	—
41 Walk	Xleen	Hlay	—	Hlay
42 Sit	Tein	—	—	—
43 Stand	Ta	Mateinay	—	Mateenahay
44 Kill	That	Sot	—	Afatu
45 Yes	Houkkay	—	—	—
46 No	Mahouppoo	—	—	—
47 Here	Deemaw	—	—	Thaman
48 There	Homaw	—	—	—
49 Above	Apomaw	—	—	Apobau
50 Below	Houkmaw	—	—	Auk

The next most prevalent language in *India* beyond the *Ganges*, is what we call the *Siammese*, a word probably corrupted from the *Sban* of the *Burmas*. The *Siammese* race occupies the whole frontier of *Yunan*, extending on the east to *Tonquin* and *Cochinchina*, and on the south, down to the sea. It contains many states or kingdoms, mostly subject or tributary to the *Burmas*. I have only procured vocables of three of its dialects, which I here give compleat, as they differ considerably.

The first dialect is that of the kingdom of *Siam*, the most polished people of eastern *India*. They call themselves to me simply *Tai*; but Mr. LOUBERE says,

that in order to distinguish themselves from a people to be afterwards mentioned, they add the word *Nay*, which signifies little. By the *Burmas*, from the vulgar name of their former capital city, they are called *Yoodaya*; by the people of *Pegu* they are named *Seem*; and by the *Chinese* of *Yunan*, *Syianlo* or *Kyænlo*.

The second dialect of the *Siammese* language which I shall mention, is that of a people, who to me, also call themselves simply *Tai*. I believe, however, they are the *Tai-yay*, or great *Tai*, of Mr. LOUBERE. They have been long subject to the *Burmas*, who call them *Myelapshan*; by the people of *Pegu* they are named *Sawn*; *Thay* by the *Karayn*; *Looktai* by the *Katbeeshan*; *Kabo* by the people of *Kathee* or *Cussay*; *Pawyee* by the *Chinese*; and to me they were named *Lau* by the *Siammese* proper. Their country towards the north lies between the west side of *Yunan* and the *Erawade* or great *Burma* river, descending down its eastern bank a considerable way; it then extends along the south side of *Yunan* till it comes to the *Loukiang* or river of *Martaban*, which forms its eastern boundary; on the south it extends to no great distance from *Martaban*; and on the west it is separated from *Burma* proper by a chain of mountains, that pass about fifteen miles to the east of *Ava*.

The third dialect of the *Siammese* language is that of a people called, by the *Burmas*, *Kathee Shawn*; to themselves they assume the name of *Tai-loong* or great *Tai*. They are called *Moitay Kabo*, by the *Kathee* or people of *Cussay*. They inhabit the upper part of the *Kiaynduayn* river, and from that west to the *Erawade*. They have, in general, been subject to the king of *Munnypura*; but, at present, are tributary to the *Burma* monarch.

II. English.	<i>Tainay</i> .	<i>Taiyay</i> .	<i>Tai-loong</i> .
1 Sun	Rocn	Kawan	Kangoon
2 Moon	Sun	Loen	Noon
3 Stars	Dau	Lau	Nau
4 Earth	Deen	—	Neen
5 Water	Nam	Nawh or Naum	Nam
6 Fire	Fai	Fai	Pui
7 Stone	Hin	—	Heen
8 Wind	Lam	Loum	Loom
9 Rain	Fon	Foon	Poon
10 Man	Kon	Kon	Koon
11 Woman	Poen	Paeyen	Pawneen
12 Child	Daeknooe	Lawen	Lookwoon

<i>English.</i>	<i>Tainay.</i>	<i>Taiyay.</i>	<i>Tai-loong.</i>
13 Head	Seeza	Ho	Hoo
14 Mouth	Pawk	Tfop	Pawk
15 Arm	Kayn	Komooee	Moo
16 Hand	Moo	Moore	Pawmoo
17 Leg	Naung	Koteen	Hooko
18 Foot	Langteen	Swateen	Lungdin
19 Beast	Sawt	—	Nook
20 Bird	Noup	Naut	Nook
21 Fish	Plaw	Paw	Paw
22 Good	Dee	Lee	Wanoo
23 Bad	Maidee	Malee	Mowan
24 Great	To	Loung	Loong
25 Little	Layt	Laik	Unleek
26 Long	Yan	Yan	Anyou
27 Short	San	Lot	Unlot
28 One	Noong	Noo	Aning
29 Two	So	Sang	Sowng
30 Three	Sam	Sam	Sam
31 Four	See	Shee	Shee
32 Five	Haw	Haw	Haw
33 Six	Hok	Houk	Hook
34 Seven	Kyæt	Sayt	Seet
35 Eight	Payt	Payt	Pæt
36 Nine	Kawo	Kaw	Kau
37 Ten	Seet	Sheet	Ship
38 Eat	*Kyeen Kau	Kyeen Kau	Kyeen Kau
39 Drink	Kyeen Nam	Kyeen Nawm	Kyeen Nam
40 Sleep	Non	Non	Non
41 Walk	Teeo	Hoe	Pei
42 Sit	Nanon	Nawn	Nüng
43 Stand	Yoon	Lootfook	Peignung
44 Kill	Kaw	Po	Potai

* Kau is rice, and Nam is water. Here, therefore, we have a nation with no word to express the difference between eating and drinking. The pleasures of the table must be in little request with them.

<i>English.</i>	<i>Tainay.</i>	<i>Taiyay.</i>	<i>Tai-loong.</i>
45 Yes	O	Sai	Munna
46 No	Maishai	Mofai	Motfau
47 Here	Teenee	Teenai	Teenay
48 There	Teenon	Teepoon	Ponaw
49 Above	Bonon	Teenaipoon	Nooa
50 Below	Kang lang	Teetai	—

The next language, of which I shall give a specimen, is that of the people who call themselves *Moitay*. Their country is situated between *Sylhet* in *Bengal* and that of the *Tai-loong* above mentioned: to the north of it is *Assam*; on the south *Arakan*, and the rude tribes bordering on that kingdom. Their capital city they name *Munnypura*. By the people of *Bengal* they are called *Muggaloos*, an appellation with which those we saw at *Amarapura* were totally unacquainted. This name, however, *Europeans* have applied to the country, turning it at the same time into *Meckley*. *Katbee* is the name given to this people by the *Burmas*, which we also have taken for the name of the country, and corrupted into *Cussay*. Mr. RENNEL having from *Bengal* obtained information of *Meckley*, and from *Ava* having heard of *Cussay*, never conceived that they were the same, and, accordingly, in his map of *Hindustan*, has laid down two kingdoms, *Cussay* and *Meckley*; for which, indeed, he had sufficient room, as by Captain BAKER's account he had been induced to place *Ava* much too far to the east.

<i>III. English.</i>	<i>Moitay.</i>	<i>English.</i>	<i>Moitay.</i>
1 Sun	Noomeet	14 Mouth	Seembaw
2 Moon	Taw	15 Arm	Pambom
3 Stars	Towang Meezat	16 Hand	Khoit
4 Earth	Leipauk	17 Leg	—
5 Water	Eesheen	18 Foot with the	Kho
6 Fire	Mee	ankle	
7 Stone	Noong Loong	19 Beast	—
8 Wind	Noosheet	20 Bird	Oofaik
9 Rain	No	21 Fish	Ngaw
10 Man	Mee	22 Good	Pawee or Pai
11 Woman	Noopee	23 Bad	Pattay
12 Child	Peeka	24 Great	Sauwee
13 Head	Kop Kok	25 Little	Apeekauk
			26 Long

	<i>Moitay.</i>	<i>English.</i>	<i>Moitay.</i>
26 Long	Afamba	39 Drink	Tawee
27 Short	Ataymba	40 Sleep	Keepee
28 One	Amaw	41 Walk	Kwnee
29 Two	Anee	42 Sir	Pummee
30 Three	Ahoom	43 Stand	Lapee
31 Four	Maree	44 Kill	Hallo
32 Five	Mangaw	45 Yes	Manee
33 Six	Torok	46 No	Nattay
34 Seven	Tarayt	47 Here	Mashee
35 Eight	Neepaw	48 There	Ada
36 Nine	Mapil	49 Above	Mataka
37 Ten	Tarrow	50 Below	Maka
38 Eat	Sat		

In the intermediate space between *Bengal*, *Arakan*, the proper *Burma*, and the kingdom of *Munnaypura*, is a large mountainous and woody tract. It is occupied by many rude tribes. Among these, the most distinguished, is that by the *Burmas* called *Kiayn*, from whom is derived the name of the great western branch of the *Erawade*, for *Kiaynduayn* signifies the fountain of the *Kiayn*. This people calls itself *Koloun*, and it seems to be a numerous race, universally spoken of by its neighbours, as remarkable for simple honesty, industry, and an inoffensive disposition.

<i>IV. English.</i>	<i>Koloun.</i>	<i>English.</i>	<i>Koloun.</i>
1 Sun	Konee	14 Mouth	Mawkoo
2 Moon	Klow	15 Arm	Maboam
3 Stars	Affay	16 Hand	Mukoo
4 Earth	Day	17 Leg	Manwam
5 Water	Tooe	18 Foot	Kopaung
6 Fire	May	19 Beast	Pakyoo
7 Stone	Aloong	20 Bird	Pakyoo
8 Wind	Klee	21 Fish	Ngoo
9 Rain	Yoo	22 Good	Poelahoe
10 Man	Kloun	23 Bad	Selahoe
11 Woman	Patoo	24 Great	Ahlayn
12 Child	Saemee	25 Little	Amee
13 Head	Mulloo	26 Long	Afaw

<i>English.</i>	<i>Koloun.</i>	<i>English.</i>	<i>Koloun.</i>
27 Short	Sooæhay	39 Drink	Koyawee
28 One	Moo	40 Sleep	Eitsha
29 Two	Palmeë	41 Walk	Hlayæshoe
30 Three	Patoon	42 Sit	Own
31 Four	Poonhee	43 Stand	Undoon
32 Five	Poonho	44 Kill	Say,oe
33 Six	Poofouk	45 Yes	Athæba
34 Seven	Pooæfæ	46 No	Seehay
35 Eight	Pooæfay	47 Here	Næa
36 Nine	Poongo	48 There	Tsooa
37 Ten	Poohaw	49 Above	Akloengung
38 Eat	Kayawæ	50 Below	Akoa

Another rude nation, which shelters itself in the recesses of hills and woods, from the violence of its insolent neighbours, is named by the *Burmas Karayn*; and *Kadoon* by the people of *Pegu*. They are most numerous in the *Pegu* kingdom, and like the *Kiayn* are distinguished for their innocence and industry. By the *Burmas* they are said to be of two kinds; *Burma* and *Talain Karayn*. Some of them, with whom I conversed, seemed to understand this distinction, calling the former *Passooko* and the latter *Maploo*. This, however, probably arose from these individuals being better acquainted with the *Burma* ideas, than the generality of their countrymen; for the greater part of those with whom I conversed said that all *Karayn* were the same, and called them *Play*. I am, however, not certain if I understood them rightly; nor do I know, that I have obtained the proper name of this tribe. I have given a vocabulary of each of these, who seemed to understand the distinction of *Burma* and *Talain Karayn*, and two of different villages who did not understand the difference; for in this nation I found the villages differing very much in dialect; even where not distant, probably owing to their having little communication one with another. It must be observed, that in using an interpreter, one is very liable to mistakes, and those I had were often very ignorant.

<i>V. English.</i>	<i>Passooko.</i>	<i>Maploo.</i>	<i>Play, No. 1.</i>	<i>Play, No. 2.</i>
1 Sun	Moomay	Moo	Mooi	Moomay
2 Moon	Law	Law	Law	Poolaw
3 Stars	TSaw	Sheeaw	Shaw	Shaw

<i>English.</i>	<i>Passooko.</i>	<i>Maploo.</i>	<i>Play, No. 1.</i>	<i>Play, No. 2.</i>
4 Earth	Katchaykoo	Kolangkoo	Kako	Laukoo
5 Water	Tee	Tee	Tee	Tee
6 Fire	Mee	Meeung	Meea	Mee
7 Stone	Loe	Loong, Noong	—	Loung
		Lung		
8 Wind	Kallee	Lée	Lee	Lee
9 Rain	Tachoo	Tchatchang	Moko	Moko
10 Man	Paganyo	Pashaw	Pasha	Paploom or Pasha
11 Woman	Pomoo	Pomoo	Pummee	Pammoe
12 Child	Pozaho	Poffaw	Napootha	Apoza
13 Head	Kozohui	Kohui	Kohui	Pokoohui
14 Mouth	Patako	Pano	Ganoo	Pano
15 Arm	Tchoobawlee	Tchoobawlee	Atsyoodoo	Tchoobawlee
16 Hand	Patchoo	Poitchoo	Kutshoo	Tchooafee
17 Leg	Kadoe	Pokaw	Kandoo	Kandoo
18 Foot	Konyawko	Kanyakoo	Kanyako	Kanyasaw
19 Beast	T'hoo	Too	—	—
20 Bird	T'hoo	Too	Kalo	To
21 Fish	Nyaw	Zyaw	Ya	Ya
22 Good	Ngeetchawmaw	Ngee	Gyee	Gyee
23 Bad	Taw ngee baw	Nguay	Gyeeay	Gyeeay
24 Great	Pawdoo	Hhoo	Uddo	Doo
25 Little	Tchecka	Tchei	Atfei	Atfee
26 Long	To atcho maw	T'ho	Loeya	Ato
27 Short	P'hecko	P'hoe	Apoe	Apoe
28 One	Taydoe	Nadoe	Laydoe	Laydoe
29 Two	Kee-doe	Nee-doe	Nee-doe	Nee-doe
30 Three	So-doe	Song-doe	Soung-doe	Soung-doe
31 Four	Looe-doe	Lee-du	Lee-doe	Lee-doe
32 Five	Yay-doe	Yay-doe	Yay-doe	Yay-doe
33 Six	Hoo-doe	Hoo-doe	Koo-doe	Koo-doe
34 Seven	Nooe-doe	Noay-doe	Noæ-doe	Noæ-du
35 Eight	Ho-doe	Ho-doe	Ko-doe	Ko-doe
36 Nine	Kooee-doe	Kooee-doe	Kooee-doe	Kooee-doe

<i>Englsh.</i>	<i>Passooko.</i>	<i>Maploo.</i>	<i>Play, No. 1.</i>	<i>Play, No. 2.</i>
37 Ten	Tatchee	Leitchee	Taffee	Laytfee
38 Eat	Po, o	Aw	Ang	Ang
39 Drink	Oo	O	O	O
40 Sleep	Prammee	Mee	Mee	Mee
41 Walk	Latcholia	Leetalay	Rakuæ	Lakuæ
42 Sit	Tcheenaw	Tfeingaw	Tysana	Tfayna
43 Stand	Tchocto	Tchonto	Tfayna lagay	Gnaythoe
44 Kill	Klo	P'hee	Pætegui	Paythee
45 Yes	Maylee	Moayyoo	Moiyoo	Moithay
46 No	Tamay baw	Moæ	Moi	Moi
47 Here	Loee	Layee	Leyoo	Layee
48 There	Lubanee	Loo	Læyo	Læyo
49 Above	Mokoo	Mokoo	Læpanko	Læpanko
50 Below	Hokoo	Lankoo	Læpaula	Læpaula

To this kingdom, the natives of which call themselves *Moan* we have given the name of *Pegu*, a corruption of the vulgar appellation of its capital city *Bagoo*; the polite name of the city among its natives having been *Dam Hanga*, as among the *Burmas Hanzawade*. This people are named *Talain* by the *Burmas* and *Chinese* of *Yunan*; *Lawoo* by the *Karayn*; and *Tarain* by the *Tai-loong*: their kingdom extends along the mouths of the two great rivers *Erawade* and *Thau-luayn*, or of *Ava* and *Martaban*, from the frontiers of *Arakan* to those of *Siam*.

<i>Englsh.</i>	<i>Moan.</i>	<i>Englsh.</i>	<i>Moan.</i>
1 Sun	Knooay Tangooay	13 Head	Kadap
2 Moon	Katoo	14 Mouth	Paun
3 Stars	Shawnaw	15 Arm	Toay
4 Earth	Toe	16 Hand	Kanna Toay
5 Water	Nawt	17 Leg	Kadot-prawt
6 Fire	Komot	18 Foot	Kanat zein
7 Stone	————	19 Beast	————
8 Wind	Kyeaw	20 Bird	Seen ngat
9 Rain	Proay	21 Fish	Kaw
10 Man	Puce	22 Good	Kah
11 Woman	Preau	23 Bad	Hookah
12 Child	Koon	24 Great	Mor

<i>English.</i>	<i>Moan.</i>	<i>English.</i>	<i>Moan.</i>
25 Little	Bok	38 Eat	Tsapoung. Poung, I be-
26 Long	Kloein		lieve, is rice.
27 Short	Klee	39 Drink	Saungnawt. Nawtis water
28 One	Mooi	40 Sleep	Steik
29 Two	Bau	41 Walk	Au
30 Three	Pooi	42 Sit	Katcho
31 Four	Pou	43 Stand	Katau
32 Five	Soon	44 Kill	Taw
33 Six	Teraw	45 Yes	Taukua
34 Seven	Kapo	46 No	Auto
35 Eight	Tatsam	47 Here	Noomano
36 Nine	Kasfee	48 There	Taoko
37 Ten	Tfo	49 Above	Tatoo commooee
		50 Below	Tauamo

These fix are all the languages of this great *eastern* nation, of which, during my stay in the *Burma* empire, I was able to procure vocables sufficient for my purpose. Although they appear very different at first sight, and the language of one race is totally unintelligible to the others; yet I can perceive in them all some coincidences, and a knowledge of the languages, with their obsolete words, their phrases, their inflections of words, and elisions, *euphoniæ causa*, would, perhaps, shew many more. Those that have the greatest affinity are in Tab. I. IV. and V. Mr. GILCHRIST, whose knowledge of the common dialects in use on the banks of the *Ganges* is, I believe, exceeded by that of no *European*, was so obliging as to look over these vocabularies, but he could not trace the smallest relation between the languages.

I shall now add three dialects, spoken in the *Burma* empire, but evidently derived from the language of the *Hindu* nation.

The first is that spoken by the *Mohammedans*, who have been long settled in *Arakan*, and who call themselves *Rooinga*, or natives of *Arakan*.

The second dialect is that spoken by the *Hindus* of *Arakan*. I procured it from a *Bráhmén* and his attendants, who had been brought to *Amarapura* by the king's eldest son, on his return from the conquest of *Arakan*. They called themselves *Rossawn*, and, for what reason I do not know, wanted to persuade me that

theirs was the common language of *Arakan*. Both these tribes, by the real natives of *Arakan*, are called *Kulaw Yakain*, or stranger *Arakan*.

The last dialect of the *Hindustanee* which I shall mention is, that of a people called by the *Burmas* *Aykobat*, many of whom are slaves at *Amarapura*. By one of them I was informed, that they called themselves *Banga*; that formerly they had kings of their own, but that, in his father's time, their kingdom had been overturned by the king of *Munnypura*, who carried away a great part of the inhabitants to his residence. When that was taken last by the *Burmas*, which was about fifteen years ago, this man was one of the many captives who were brought to *Ava*. He said also, that *Banga* was seven days' journey south-west from *Munnypura*; it must, therefore, be on the frontiers of *Bengal*, and may, perhaps, be the country called in our maps *Cashgar*.

Mr. *Gilchrist* has been so good as to examine particularly these two dialects, and to mark thus (*) those words which come nearest the *Hindustanee* spoken on the *Ganges*; and thus (†) those not so evidently in connection with the same, but which shew resemblance by analogy.

<i>English.</i>	<i>Rooinga.</i>	<i>Rossawn.</i>	<i>Banga.</i>
1 Sun	Bel	*Sooja	Baylle
2 Moon	Sawn	Sundfa	Satkan
3 Stars	Tara	*Nokyoto	*Tara
4 Earth	Kool	Murtika	*Matee
5 Water	Pannæ	*Dfol	*Pannæ
6 Fire	Auin	*Aaganee	Zee
7 Stone	Sheel	*Sheel	*Heel
8 Wind	Bau	*Pawun	*Bo
9 Rain	Jorail	†Bistee	*Booun
10 Man	Manush	†Moonufa	*Manoo
11 Woman	Meealaw	Stree	Zaylan
12 Child	Gourapa	*Balouk	Sogwo
13 Head	Mata	Mustok	Teekgo
14 Mouth	Gall	Bodon	Totohan
15 Arm	Bahara	*Baho	Paepoung
16 Hand	Hat	Osto	Hatkan
17 Leg	Ban	†Podo	Torooa
18 Foot	Pau	Pata	Zankan

19 Beast

<i>English.</i>	<i>Rooinga.</i>	<i>Rossawn.</i>	<i>Banga.</i>
19 Beast	—	Zoomtroo	Safee fangee
20 Bird	Paik	†Pookyee	†Pakya
21 Fish	Maws	Mootfæ	†Mas
22 Good	Goom	Gam	Hoba
23 Bad	Goom nay	Gumnay	Hoba nay
24 Great	Boddau	Dangor	Domorgo
25 Little	Thuddee	*Tfooto	Hooroogo
26 Long	Botdean	Deengol	Deengul
27 Short	Banick	*Batee	*Batee
28 One	Awg	*Aik	*Ak
29 Two	Doo	*Doo	De
30 Three	Teen	*Teen	*Teen
31 Four	Tchair	*Tfar	*Saree
32 Five	Panfoee	*Paus	*Pas
33 Six	Saw	*Tfo	*Tfæ
34 Seven	Sat	*Sat	*Hat
35 Eight	Awtoa	†Afto	*Awt
36 Nine	Nonaw	*No	*No
37 Ten	Duffoa	*Dos	*Dos
38 Eat	Kau	*Kawai	†Kæk
39 Drink	Karin	Kawo	†Peek
40 Sleep	Layrow	†Needfara	Hoolleck
41 Walk	Pawkay	Bayra	†O-teea-ootea
42 Sit	Boihow	†Boesho	†Bo
43 Stand	Tcheilayto	*Karao	†Oot
44 Kill	Marim	*Maro	*Mar
45 Yes	Hoi	Oir	Oo
46 No	Etibar	*Noay	*Naway
47 Here	Hayray	Etay	Erang
48 There	Horay	Horay	Orung
49 Above	Ouchalo	*Ooper	Gos
50 Below	Ayray	Hayray	†Tol

XVIII.

ON THE CHRONOLOGY OF THE HINDUS.

By Captain FRANCIS WILFORD.

THE accompanying genealogical table is faithfully extracted from the *VISHNU purána*, the *BHA'GAVAT*, and other *puránas*, without the least alteration whatever. I have collected numerous MSS. and with the assistance of some learned *Pundits* of *Benares*, who are fully satisfied of the authenticity of this table, I exhibit it as the only genuine chronological *record* of Indian history that has hitherto come to my knowledge. It gives the utmost extent of the chronology of the *Hindus*; and as a certain number of years only can be allowed to a generation, it overthrows at once their monstrous system, which I have rejected as absolutely repugnant to the course of nature, and human reason.

Indeed their systems of geography, chronology, and history, are all equally monstrous and absurd. The circumference of the earth is said to be 500,000,000 *yojanas*, or 2,456,000,000 British miles: the mountains are asserted to be 100 *yojanas*, or 491 British miles high. Hence the mountains to the south of *Benares* are said, in the *puránas*, to have kept the holy city in total darkness, till *Matra-deva* growing angry at their insolence, they humbled themselves to the ground, and their highest peak now is not more than 500 feet high. In *Europe* similar notions once prevailed; for we are told that the *Cimmerians* were kept in continual darkness by the interposition of immensely high mountains. In the *CALICA purána*, it is said that the mountains have sunk considerably, so that the highest is not above one *yojana*, or five miles high.

When the *Puranics* speak of the kings of ancient times, they are equally extravagant. According to them, king YUDHISHT'HIR reigned seven and twenty thousand years; king NANDA, of whom I shall speak more fully hereafter, is said to have possessed in his treasury above 1,584,000,000 pounds sterling, in gold coin alone: the value of the silver and copper coin, and jewels, exceeded all calculation; and his army consisted of 100,000,000 men. These accounts geographical, chronological, and historical, as absurd and inconsistent with reason, must be rejected. This monstrous system seems to derive its origin from the ancient period
of

of 12,000 natural years which was admitted by the *Persians*, the *Etruscans*, and, I believe, also by the *Celtic* tribes ; for we read of a learned nation in *Spain*, which boasted of having written histories of above six thousand years.

The *Hindus* still make use of a period of 12,000 divine years, after which a periodical renovation of the world takes place. It is difficult to fix the time when the *Hindus*, forsaking the paths of historical truth, launched into the mazes of extravagance and fable. MEGASTHENES, who had repeatedly visited the court of CHANDRA GUPTA, and of course had an opportunity of conversing with the best informed persons in *India*, is silent as to this monstrous system of the *Hindus* : on the contrary, it appears, from what he says, that in his time they did not carry back their antiquities much beyond six thousand, or even five thousand years, as we read in some MSS. He adds also, according to CLEMENS of *Alexandria*, that the *Hindus* and the *Jews* were the only people who had a true idea of the creation of the world, and the beginning of things. There was then an obvious affinity between the chronological systems of the *Jews* and the *Hindus*. We are well acquainted with the pretensions of the *Egyptians* and *Chaldeans* to antiquity. This they never attempted to conceal. It is natural to suppose, that the *Hindus* were equally vain : they are so now ; and there is hardly a *Hindu* who is not persuaded of, and who will not reason upon, the supposed antiquity of his nation. MEGASTHENES who was acquainted with the antiquities of the *Egyptians*, *Chaldeans*, and *Jews*, whilst in *India*, made enquiries into the history of the *Hindus*, and their antiquity : and it is natural to suppose that they would boast of it as well as the *Egyptians* or *Chaldeans*, and as much then as they do now. Surely they did not invent fables to conceal them from the multitude, for whom on the contrary these fables were framed.

At all events, long before the ninth century the chronological system of the *Hindus* was as complete, or rather, perfectly the same as it is now ; for ALBUMAZAR, who was contemporary with the famous ALMAMUN, had lived at his court at *Balac* or *Balkb*, had made the *Hindu* antiquities his particular study. He was also a famous astronomer and astrologer, and had made enquiries respecting the conjunctions of the planets, the time of the creation of the world, and its duration, for astrological purposes ; and he says, that the *Hindus* reckoned from the Flood to the *Hejira* 720,634,442,715 days, or 3725 years *. Here is a mistake, which

* See *Bailly's Astron. Anc.* p. 30. and Mr. *Davis's Essay* in the second volume of the *Asiatick Researches*.

probably

probably originates with the transcriber or translator, but it may be easily rectified. The first number, though somewhat corrupted, is obviously meant for the number of days from the creation to the *Hejira*; and the 3725 years are reckoned from the beginning of the *Cali-yug* to the *Hejira*. It was then the opinion of ALBUMAZAR about the middle of the ninth century, that the æra of the *Cali-yug* coincided with that of the Flood. He had, perhaps, data which no longer exist, as well as ABUL-FAZIL in the time of AKBAR. Indeed, I am sometimes tempted to believe, from some particular passages in the *Purânas*, which are related in the true historical style, that the *Hindus* have destroyed, or at least designedly consigned to oblivion, all genuine records, as militating against their favourite system. In this manner the *Romans* destroyed the books of NUMA, and consigned to oblivion the historical books of the ETRURIANS, and I suspect also those of the TURDETANI in *Spain*.

The *Purâns* are certainly a modern compilation from valuable materials, which I am afraid no longer exist: an astronomical observation of the heliacal rising of *Canopus*, mentioned in two of the *Purânas*, puts this beyond doubt. It is declared there, that certain religious rites are to be performed on the 27th of *Bhâdra*, when *Canopus*, disengaged from the rays of the sun, becomes visible. It rises now on the 18th of the same month. The 18th and 27th of *Bhâdra* answer this year to the 29th of August and 7th of September. I had not leisure enough to consult the two *Purânas* above mentioned on this subject. But as violent disputes have obtained among the learned Pandits, some insisting that these religious rites ought to be performed on the 27th of *Bhâdra*, as directed in the *Purânas*, whilst others insist, it should be at the time of the *udâya*, or appearance of *Canopus*; a great deal of paper has been wasted on this subject, and from what has been written upon it, I have extracted the above observations. As I am not much used to astronomical calculations, I leave to others better qualified than I am to ascertain from these data the time in which the *Purânas* were written.

We learn from MANETHO that the *Egyptian* chronology enumerated fourteen *dynasties*, the particulars of which he omitted as unworthy of notice. In the same manner the *Hindu* chronology presents us with a series of fourteen Dynasties, equally repugnant to nature and reason; six of these are elapsed, we are in the seventh, which began with the Flood, and seven more we are taught to expect. These fourteen Dynasties are hardly ever noticed by the *Hindus* in their legendary tales, or historical poems. The rulers of these Dynasties are called MENUS: and
from

from them their respective Dynasty, *antara*, or period, is called a *Manwantara*. Every Dynasty ends with a total destruction of the human race, except the *Menu* or ruler of the next period, who makes his escape in a boat, with the seven *Rishis*. The same events take place; the same persons, though sometimes under different names, re-appear.

Thus the history of one Dynasty serves for all the rest. In reality history, according to the *Hindus* themselves, begins with the Flood, or the seventh *Menu*. Each period consists of 12,000 years, which the *Hindus* call *divine*. The *Persians* are not unacquainted with these renovations of the world, and periods of 12,000 years; for the bird *Simurgh* is introduced, telling CAHERMAN that she had lived to see the earth seven times filled with creatures, and seven times a perfect void, (it should be six times a perfect void, for we are in the seventh period,) and that she had already seen twelve great periods of 7000 years. This is obviously wrong; it should be seven great periods of 12,000 years.

The antediluvian history, being considered by the *Hindus* in different points of view, is related in various ways, having little connection with each other. We are told first that BRAHMA created *ten* BRA'MADICAS or children of BRA'HMA, who were to be the progenitors of the *moveable* and *immoveable* parts of the creation, by which they understand *animals* and *vegetables*. Their names are MANICHI, ATRI, ANGIRAS, PULASTYA, PULAHA, CRĪTU, DACSHA, VASISHTHA, BURĪGU, and NARADA. These sprang immediately from BRA'HMA, and produced the Gods, the *Daityas*, good and bad genii, animals, and plants of all sorts. The *Purānics* are not agreed as to the number of *Bramādicas*. In the *Bhāgavat* it is declared that they were *ten*; but in other *purānas* they reckon nine; whilst in the *Scandapurāna* it is declared that there were only seven *Bramādicas*, whose names are MARICHI, ATRI, ANGIRA'SA, PULASTYA, PULA'HA, CRITA, and VOSISHTA; nor are there wanting authorities to reduce them to three, namely, the three sons of SWAYAMBHUYA, who was BRA'HMA himself in a human shape.

It is declared, that the seven MENUS, who have made their appearance, sprang from the *Bramādicas*: their names are, SWAYAMBHUYA, SWA'ROCHISHA, UT-TAMA, TA'MASA, RAIVATA, CHACSHUSHA, and SATYAVRATA or NOAH.

The seven RISHIS sprang immediately from BRA'HMA, and their names are, CASYAPA, ATRI, VOSISHTA, VISVAME'TRA, GAUTAMA, JAMADAGNI, and BHA'RADWA'JA. These holy penitents, by their salutary counsels, and the example of their austerities, discover the path of rectitude and virtue to mankind. It is remarked

marked of *Atri*, that he was both a *Brabmádica* and a *Rĩshĩ*; and, perhaps, the seven *Menus*, the seven *Brabmádicas*, with the seven *Rĩshĩs*, are the same, and make only seven individual persons. The seven *Brabmádicas* were *prajápatĩs* or lords of the *prajas* or creatures. From them mankind were born, and they are probably the same with the seven *Menus*, who, when far advanced in years, withdrew from the world, and became *Rĩshĩs* or holy penitents, as, according to the *Puránas*, was the general practice of mankind in former ages. These seven grand ancestors of the human race were first *Brabmádicas* or children of *Brábma*, and created for the purpose of replenishing the earth with inhabitants; having fulfilled their mission they became sovereigns of the universe, or *Menus*; and in their old age they withdrew to solitary places to prepare for death and become *Rĩshĩs*. *Swayambhuva*, or the son of the self-existing, was the first *Menu*, and the father of mankind: his consort's name was *Satarupa*. In the second *Veda*, the Supreme Being is introduced thus speaking: "From me *Brábma* was born: he is above all; he is *pitama*, or the father of all men; he is *Aja* and *Swayambhu*, or self-existing." From him proceeded *Swayambhuva*, who is the first *Menu*: they call him *Adima* (or the first, or *Protogonus*;) he is the first of men, and *Paramapurusha*, or the first male. His help-meet *Pricriti* is called also *Satarupa*: she is *Adima* * or the first: she is *Visva-jenni*, or the mother of the world: she is *Iva* or like *I*, the female energy of nature, or she is a form of, or descended from *I*: she is *Para* or the greatest: both are like, *Maha-deva* and his *Saĩti* (the female energy of nature), whose names are also *Iĩa* and *Iĩ*.

Swayambhuva is *Brábma* in a human shape, or the first *Brábma*: for *Brábma* is man individually, and also collectively, mankind; hence *Brábma* is said to be born and to die every day, as there are men springing to life, and dying every day. Collectively he dies every hundred years, this being the utmost limits of life in the *Cali-yug*, according to the *Puránas*: at the end of the world, *Brábma* or mankind is said to die also, at the end of a hundred divine years. *Swayambhuva*, in the present *calpa*, is *Viřnu* in the character of *Brábma-rupĩ Ĵavardana*, or the *Viřnu* with the countenance of *Brábma*. To understand this it is necessary to premise, that it has been revealed to the *Hindus*, that, from the beginning to the end of things, when the whole creation will be annihilated and absorbed into the Supreme Being, there will be five great *calpas*, or periods. We are now in the middle of the fourth

* *Adima* is the feminine gender from *Adima* or *Adimas*.

calpa, fifty years of *Brábma* being elapsed; and of the remainder the first *calpa* is begun. These five great *calpas* include 500 years of *Brábma*, at the end of which nothing will remain but the self-existing. Every *calpa*, except the first, is preceded by a renovation of the world, and a general flood: whilst the flood that precedes every *Manwantara* is in great measure, a partial one, some few high peaks and some privileged places, as *Benares*, being excepted; the peaks remaining above the waters, and *Benares* and other privileged places being surrounded by the waters as with a circular wall.

These five *calpas* have five deities, who rule by turns, and from whom the *calpas* are denominated. These five deities are, *Dévi*, *Surya* or the Sun, *Ganésa*, *Vishnu*, and *Is'wara*. *Brábma* has no peculiar *calpa*: he is intimate to every one of them. Every deity, in his own period, is *Calsva-rupi* or *Chronus*. We are now under the reign of the fourth *Chronus*. The Western mythologists mention several ruling deities of that name. *Calsva-rupi* signifies he who has the countenance of *Cála*, *Chronus*, or *Time*. This is now the *calpa* of *Vishnu*, who, to create, thought on *Brábma*, and became *Brábma-rupi-Janardana*. He preserves and fosters the whole creation in his own character; and will ultimately destroy it through *Is'wara* or *Rudra*. The *calpa* of *Vishnu* is called also the *Pudma* or *Lotos period*. It is declared in the *puránas* that all animals and plants are the *Ling* or *Phallus* of the *Calsva-rupi* deity; and that at the end of his own *calpa* he is deprived of his *Ling* by his successor, who attracts the whole creation to himself, to swallow it up or devour it, according to the Western mythologists; and at the end of his *calpa* he disgorges the whole creation. Such is the origin of *Chronus* devouring his own offspring; of *Jupiter* disgorging it through a potion administered to him by *Metis*; and of *Chronus* castrating his own father. According to this, *Swayambhuva* is conjointly and individually, *Brábma*, *Vishnu*, and *Isá* or *Maha-deva*. To *Swayambhuva* were born three daughters, *Acuti*, *Deva-fruti*, and *Visfruti* or *Prasuti*. *Brábma* created three great *Rajapátis*, to be their husbands; *Cardama*, *Dacsha*, (the same who was also a *Brábmádica*,) and *Ruchi*. *Cardama* is acknowledged to be a form of *Siva*, or *Siva* himself: and *Dacsha* to be *Brábma*; hence he is often called *Dacsha Brábma*; and we may reasonably conclude that the benevolent *Ruchi* was equally a form of *Vishnu*. It is said in the *védas*, as I am assured by learned *pundits*, that these three gods sprang in a mortal shape from the body of *Adima*; that *Dacsha Brábma* issued mystically from his navel, *Vishnu* from his left, and *Siva* from his right side. It is declared in the *puránas*, that *Is'wara* cut off one of the heads of *Brábma*, who being

immortal was only maimed. The same mystical rancour was manifest when they assumed a mortal shape, as appears from the following relation: The pious *Dacsha* desiring to perform sacrifice, invited gods and men to assist at it; but did not ask *Siva* on account of his bad conduct and licentious life. The wife of *Siva*, who was the daughter of *Dacsha*, could not brook this neglect, and determined to go: her husband expostulated with her, but to no purpose. When she arrived, her father took no notice of her, which enraged her so much, that after having spoiled the sacrifice, she jumped into the sacred fire, and expired in the flames. *Siva* hearing of her misfortune, went to *Dacsha*; and, reproaching him for his unnatural conduct towards his own daughter, cut off his head. *Dacsha* had no male offspring, but many daughters, whose alliance was eagerly sought for by the most distinguished characters. It is asserted in the *purānas* that from *Cardama*, *Dacsha*, and *Ruchi*, the earth was filled with inhabitants: yet in the same *purānas* we are told, that *Brāhma*, being disappointed, found it necessary to give two sons to *Adima*, from whom, at last, the earth was filled with inhabitants. These two sons were PRIYAVRATA and UTTA'NAPA'DA, who appear to be the same with CARDAMA and RUCHI. Here the antediluvian history assumes a different shape; and the *purānics*, abandoning their idle tales of the seven *Menus* and renovations of the world, between the time of SWAYAMBHUVĀ and the flood of SATYAVRATA, presents us with something more consistent with reason and historical truth; but which at once overthrows their extravagant fabrick. PRIYAVRATA was the first born of ADIMA; and the particulars recorded of his progeny have no small affinity with the generations exhibited by SANCHONIATHO, as will appear from the following comparative Table:

I. ADIMA, and ADIMA or I'VA.

I. PROTOGONUS, synonymous with ADIM:
AION or AEON from I'VA or I'VAM,
in the second case.

II. PRIYAVRATA. He married BARMISMATI, the daughter of VISVACARMA, the chief engineer of the Gods.

II. GENUS, GENEĀ.

III. AGNIDHRA and his seven brothers, whose names signify fire and flame. By one wife he had three sons; they became *Menus*; and were named, UT-

III. PHOS, PHUR, PHLOX; that is, light, fire, and flame.

TAMA,

TAMA, TAMASA, and RAIVATA.

By another wife, AGNIDHRA had nine sons, who gave their names to the mountainous tracts of *Nabbi*.

IV. CIMPURUSHA, HARIVARSHA, ILA'ARTTA, RA'MA'NACA, CURU, BHADRASVA, CE'TUMA'LA, and HIRANMAYA.

V. RĪSHABAHA, son of NABAHI.

VI. BHARATA, who gave his name to the country of *Bharata-varsha*.

VII. SUMARTI, DHUMRA - CE'TU, whose name signifies a fiery meteor.

VIII. DEVAJITA

9. PRATIHARA

10. PRATIHATA

{ said by some to be brothers. The names of the two last imply beating, hammering, &c.

IX. AJA and BHUMA'NA.

Then follows a list of sixteen names, supposed by some to be so many generations in a direct line; by others, this is denied: but as nothing is recorded of them, they are omitted.

The posterity of ADIMA or ADIM (for the letter A in this name has exactly the sound of the *French e* in the word *j'aime*) through UT'TA'NAPA'DA, is as follows:

I. ADIM and I'VA. I'VA sounds exactly like EVE, pronounced as a disyllable E-VE.

II. UT'TA'NAPA'DA. He had two wives, SURUCHI and SURUTI: by the first he had UT'TAMA, and by the second DHRUVA. *Uttānapāda* was exceedingly fond of *Suruchi*, which gave rise to the following circumstances. Whilst he was caressing *Uttama* his son *Dhruva* went to him and was repulsed. *Dhruva* burst into tears, and complained to his mother, who advised him to withdraw into the deserts. He followed her advice, and retired into a forest on the banks of the *Jumna*, where he gave himself up to the contemplation of the Supreme Being, and the performance of religious austerities. After many years the Supreme Being appeared to him, and commanded him to put an end to his austerities and return

IV. They begat sons of vast bulk, whose names were given to the mountains on which they seized, viz. *Cassius*, *Libanus*, *Anti-Libanus*, *Brathys*.

V. MEMRUMUS, HYPsurANIUS, and USOUS.

VI. AGREÆS, HALIÆUS.

VII. CHRYSÆOR.

VIII. TECHNITES, GEINUS, AUTOCHTON.

IX. AGROWERUS, or AGROTES. Aja in *Sanscrit*, is synonymous nearly with *Autochton*, and BHU'MANA answers to *Agrowerus* and *Agrotes*.

to

to his father, who had relented. He went accordingly to his father, who received him with joy, and resigned the kingdom to him. *Dhruva*, like *Enoch* in Scripture, is commended for his extraordinary piety, and the salutary precepts he gave to mankind. He did not taste death, but was translated to heaven, where he shines in the polar star. Here *Enoch* and *Enos* are confounded together. *Uttama*, whose education had been neglected, gave himself up to pleasure and dissipation. Whilst hunting he happened to quarrel with the *Cuveras*, and was killed in the fray. *Dhruva*, at the head of a numerous army, took the field to revenge the death of his brother: many had fallen on both sides, when *Swayambhuva* or *Adim* interposed, and a lasting peace was concluded between the contending parties.

III. **DHRUVA**. He had by his first wife two sons, **VATSARA** and **CALMAVATSARA**; by **ILA** he had a son called **UTCALA**, and a daughter.

IV. **VATSARA**, by his wife **SWACATAI** had six sons, the eldest of whom was called **PUSHPA'RNA**.

V. **PUSHPA'RNA** had by his wife **DOSHA** three sons, and by **NAD'WALA**, **CHACHUSHA**, who became a *Menu*.

VI. **CHACHUSHA** had twelve sons, the eldest of whom was called **ULMACA**.

VII. **ULMACA** had six sons, the eldest of whom was **ANGA**.

VIII. **ANGA** had an only son called **VENA**.

IX. **VENA**, being an impious and tyrannical prince, was cursed by the **BRA'HMENS**; in consequence of which curse he died without leaving issue. To remedy this evil they opened his left arm, and with a stick churned the humours till they at last produced a son, who proved as wicked as his father, and was of course set aside: then opening the right arm, they churned till they produced a beautiful boy, who proved to be a form of **VISHNU** under the name of **PRĪTHU**.

X. **PRĪTHU**. Gods and men came to make obedience to him, and celebrate his appearance on earth. He married a form of the goddess **LACSHMI**. In his time, the earth having refused to give her wonted supplies to mankind, **PRĪTHU** began to beat and wound her. The earth assuming the shape of a cow, went to the high grounds of *Meru*, and there laid her complaint before the supreme court, who rejected it; as she acknowledged, that she had refused the common necessities of life, not only to mankind in general, but to **PRĪTHU** himself, whose wife she was in a human shape. **PRĪTHU** and his descendants were allowed to beat and wound her in case of noncompliance with the decree of the supreme

supreme court. The earth submitted reluctantly, and since that time mankind are continually beating and wounding her, with ploughs, harrows, hoes, and other instruments of husbandry. We are told also, in more plain language, that PRĪTHU cut down whole forests, levelled the earth, planted orchards, and sowed fields with all sorts of useful seeds. From her husband PRĪTHU, the earth was denominated PRĪTHWĪ.

PRĪTHU was a religious prince, fond of agriculture, and became a husbandman; which is to be understood by his quarrel with the earth. This induces me to think, that he is the same with SATYAVRATA, or NOAH, whose mortal father is not mentioned in the *purānas*, at least my *Pundits* have not been able to find it. His heavenly father was the Sun; and SATYAVRATA is declared also to be an incarnation of VISHNU. Here I must observe, that at night, and in the west, the Sun is VISHNU: he is BRAHMA in the east, and in the morning; from noon to evening he is SIVA.

XI. PRĪTHU had five children. VIJITASVA, who became sovereign over his four brothers, and had the middle part of the kingdom to his own share; HURY-ACSHA ruled over *Prachi*, or the east, and built the town of *Rājgrība*, now *Rājmehal*; DHUMRACE'SHA, who ruled in the south, as VRICA did in the west, and DRAVINA'SA in the north.

XII. VI'SITASWA had by one of his wives three sons, called PAVACA, PAVAMANA, and SUCHI, all names of fire. He became *Antardhana* at pleasure, that is to say, he appeared and disappeared whenever he chose; and he withdrew his soul from his body at pleasure. He was born again of his own wife, and of himself, under the name of HAVIRDHANA. HAVIRDHANA married HAVIRDHANI, by whom he had six children, known by the general appellation of *Prachinabarhi*.

XIII. VARISHADA, the eldest of them, married SATADRUTI the daughter of OCÆANUS, and had by her two sons called the *Prachetas*.

XIV. The famous DACSHA before mentioned, was born again one of them. His brothers, bidding adieu to the world, withdrew to forests in distant countries towards the west, where they beheld the translation of DHRUVA into heaven. And here ends the line of UTТА'NAPA'DA, which I now exhibit at one view, with some variations.

I. SWAYAMBHUA or ADIM.

II. UTТА'NAPA'DA, who was probably the same with RUCHI.

III. DHRUVA,

- III. DHRUVA, eminent for his piety.
- IV. VATSARA.
- V. PUSHPARNA, called also RIPUNJAYA.
- VI. CHACSHUSHA, MENU.
- VII. ULMACA or URU.
- VIII. ANGA.
- IX. VENU.
- X. PRĪTHU, supposed to be NOAH.
- XI. VIGITASVA.
- XII. HAVIRDHANA.
- XIII. VARISHADA.
- XIV. The ten PRA'CHETA's.

SWAYAMBHUVA dies.

DHRUVA is translated into heaven.

By supposing *Prīthu* to be *Noah*, and *Dhruva* to be *Enos*, this account agrees remarkably well with the computation of the *Samaritan Pentateuch*. *Enos* lived 433 years after the birth of *Noah*, and, of course, the great-grand-children of the latter could be witnesses of the translation of *Dhruva* into heaven. *Swayambhuva* or *Adam* lived 223 years after the birth of *Noah*, according to the computation of the *Samaritan Pentateuch*; and it is said of *Prīthu*, that the earth having assumed the shape of a cow, he made use of this grand ancestor *Swayambhuva* as a calf to milk her. Perhaps the old fire took delight in superintending the fields and orchards, and attending the dairies of his beloved *Prīthu*.

The only material difficulty in supposing *Prīthu* to be the same with *Noah*, respects his offspring to the fourth generation before the flood. But, when we consider that *Noah* was 500 years old when *Japheth* and his two sons were born, it is hardly credible that he should have had no children till that advanced age. The *purānics* insist, that *Satyavrata* had many before the Flood, but that they perished with the rest of mankind, and that SHARMA or SHAMA, CHARMA, and JYA'PATI, were born after the Flood: but they appear to have no other proof of this, than that they are not mentioned among those who escaped with *Noah* in the ark. I shall now give a table of the *seven Menus* compared with the two lines descended from ADIM and I'VA.

SWAYAMBHUVA

SWAYAMBHUYA or ADIMA.

I. MENU.

2 PRIYAVRATA.

3 AGNIDHRA, supposed the same with SWAROCHISA.

2 UTTA'NAPA'DA.

3 DHRUVA.

4 NABHI.

II. MENU.

4 VATSARA.

5 RISSHABHA.

—UTTAMA.

III. MENU.

5 PUSHPARNA.

6 BHARATA.

—TAMASA.

IV. MENU.

6 CSHACSHUSHA.

7 SUMATI.

—RAIVATA.

7 ULMACA.

8 DEVAJITA.

V. MENU.

8 ANGA.

9 AJA.

9 VENA.

CSHACSHUSHA.—

VI. MENU.

NOAH'S Flood.

SATYAVRATA.

—10 PRITHU.

VII. MENU.

This table completely overthrows the system of the *Menwantaras*, previous to the Flood; for it is declared in the *purānas*, that at the end of every *Menwantara*, the whole human race is destroyed, except one *Menu*, who makes his escape in a boat with the seven *Rishis*. But, according to the present table, *Swayambhuva* went through every *Menwantara* and died in the sixth; *Dhruva* also saw five *Menwantaras* and died on the sixth. *Uttama*, *Tamasa*, and *Raivata*, being brothers, lived during the course of several *Menwantaras*, and when *Uttama* made his escape in a boat, besides the seven *Rishis*, he must have taken with him his two brothers, with *Dhruva* and *Swayambhuva*. Of these *Menus* little more is recorded in the *purānas*, than that they had a numerous offspring; that certain *Devatas* made their appearance; and that they discomfited the giants. The mortal father of *Swarochisa* is not known. His divine father was *Agni*; hence, he is supposed by some to be the same with *Agnidhra*.

During the reign of the fourth *Menu*, occurred the famous war between the elephants and the crocodiles, which, in the *purānas*, is asserted to have happened in the
sacred

sacred isles in the west. What was the origin of it we are not told; but whenever the *elephants* went to a lake, either to drink or to bathe, the *crocodiles* laying in wait, dragged them into the water and devoured them. The *Gujindra* or *Nag'náth*, the lord of the *elephants*, was once attacked by the chief of the *grahas* or *crocodiles* on the bank of a lake, in one of the *sacred isles* called *Suvarnéya*; a dreadful conflict took place, and the *Nag'náth* was almost overpowered, when he called on *Heri* or *Vishnu*, who rescued him, and put an end to the war. What could give rise to such an extravagant tale I cannot determine, but some obvious traces of it still remain in the *sacred isles in the west*, for almost every lake in *Wales* has a strange story attached to it, of battles fought there between an *ox* and a *beaver*, both of an uncommon size. At night the lowing of the *ox* and the rattling of the chain, with which the *Ychain-bannawg* or great *ox* endeavours to pull out of the water the *aranc* or *beaver*, are often heard. It is well known that *elephants* were called *oxen* in the west, and the ancient *Romans* had no other name for them. It may be objected, that if there had been *elephants* in the *sacred isles*, the inhabitants would have had names for them; but the *Cymri* are certainly a very modern tribe, relatively to the times we are speaking of; and probably there were no *elephants* or *crocodiles* when they settled there; but, hearing of a strange story of battles between a large land animal and an amphibious one, they concluded that these two animals could be no other than the *ox* and *beaver*, the largest of the kind they were acquainted with, *nag',nábbá st'ban*, or the place of the *nag'náth*, or lord of the elephant race, is well known to the antiquaries of *Juvernica*.

During the sixth dynasty came to pass the famous *churning of the ocean*, which is positively declared in the *purána* to have happened in the *sea of milk*, or more properly, as it is often called also, the *White Sea*, which surrounds the *sacred isles* in the west, and is thus denominated according to the *Treloca-derpan*, because it washes the shores of the *white island*, the principal of the *sacred isles*. The *white island* in *Sanscrit*, *sweta-dwip* or *chira-dwip*, is as famous in the east as it is in the west. It may seem strange, that islands so remote should be known to the *puránics*; but the truth is, that the *védas* were not originally made known to mankind in *India*. The *Bráhmens* themselves acknowledge that they are not natives of *India*, but that they descended into the plains of *Hindustan* through the pass of *Heridwar*.

The old continent is well described in the *puránas*, but more particularly the countries in which the *védas* were made public; and in which the doctrine they contain flourished for a long time. Accordingly the *sacred isles* in the west, the countries

countries bordering on the *Nile*, and, last of all, *India*, are better and more minutely described than any other country. *Atri* called *Edris*, and *Idris*, in the countries to the west of *India*, carried the *védas* from the abode of the gods on the summit of *Meru*, first, to the *sacred isle*; thence to the banks of the *Nile*; and, lastly, to the borders of *India*. The place of his abode, whilst in the *sacred isles*, became afterwards a famous place of worship under the name of *Atri-s't'ban*, the *place* or *seat* of *Atri* or *Idris*. It is often mentioned in the *puránas*, and described to be on a high mountain, not far from the sea shore.

I shall pass over the four ages, as they do not appear to answer any purpose, either astronomical or historical. They are called by the same names that were used by the *Greek* mythologists; except the fourth, which is called by the *Hindus* the *earthen age*. I shall only remark, that *Menu* in his *Institutes* says, that in the first or *golden age*,* men, free from disease, lived four hundred years; but in the second, and the succeeding ages, their lives were lessened gradually by one quarter; that in the *cali-yug*, or present age, men lived only one hundred years. This may serve to fix the period and duration of the first ages: for it is obvious, that the whole passage refers to natural years.

I shall now conclude this account of *antediluvian* history by observing, that the first descendants of *Swayambhuva* are represented in the *puránas*, as living in the mountains to the north of *India* towards the sources of the *Ganges*, and downwards as far as *Serindgara* and *Hari-dwár*. But the rulers of mankind lived on the summit of *Meru* towards the north; where they appear to have established the seat of justice, as the *puránas* make frequent mention of the oppressed repairing thither for redress. *India*, at that time, seems to have been perfectly insulated; and we know, that from the mouth of the *Indus* to *Debli*, and thence to the mouth of the *Ganges*, the country is perfectly level, without even a single hillock; but this subject is foreign to my present purpose, and may be resumed hereafter. The generations after the Flood, exhibited in the accompanying table, begin with the famous *Atri*, and end with *Cbandra-Gupta*, who was contemporary with *Alexander the Great*. *Buddha*, the grandson of *Atri*, married *Ila*, daughter of *Satyavrata* or *Noah*, who was born to him in his old age.

Atri for the purpose of making the *védas* known to mankind, had three sons; or, as it is declared in the *puránas*, the *Trimurti*, or *Hindu Triad*, was incarnated in

* *Institutes of Menu*, p. 11.

his house. The eldest called *Soma*, or the moon in a human shape, was a portion or form of *Brábma*. To him the *sacred isles* in the west were allotted. He is still alive though invifible, and is acknowledged as the chief of the facerdotal tribe to this day.

The second, a portion of *Viſhnu*, was called *Datta* or *Date* and *Dattátréya*. The countries bordering on the *Nile* fell to his ſhare. He is the *Totb* of the *Egyptians*.

The third was a cholerick ſaint called *Durváfás*. He was a portion of *Mahádéva*, but had no fixed place affigned to him; and he is generally rambling over the world, doing more miſchief than good; however, we find him very often performing *Tapafya* in the mountains of *Armenia*. A dreadful conflagration happened once in that country, which ſpreading all over *Cuſſa-dwipa* deſtroyed all the *animals* and *vegetables*. *Arama*, the ſon of a ſon of *Satyavrata* (and conſequently the *Aram* of Scripture) who was hunting through theſe mountains, was involved with his party in the general conflagration; a puniſhment inflicted, it is ſuppoſed, for his having inadvertently wounded the foot of *Durváfás* with an arrow. The death of *Arama* happened three hundred years after the Flood, according to the *puránas*,* as noticed in a former eſſay on *Egypt*.

Chandra-Gupta, or he who was ſaved by the interpoſition of *Lunus* or the *Moon*, is called alſo *Chandra* in a poem quoted by SIR WILLIAM JONES. The *Greeks* call him *Sandracuptos*, *Sandracottos*, and *Androcottos*. *Sandrocottos* is generally uſed by the hiſtorians of *Alexander*; and *Sandracuptos* is found in the works of *Athenæas*. Sir William Jones, from a poem written by *Somadeva*, and a tragedy called the coronation of *Chandra* or *Chandra-Gupta*,† diſcovered that he really was the Indian king mentioned by the hiſtorians of *Alexander*, under the name of *Sandracottos*. Theſe two poems I have not been able to procure; but I have found another dramatic piece, intituled *Mudra-Rácſhaſa*, or the *ſeal* of *Rácſhaſa*, which is divided into two parts: the firſt may be called the coronation of *Chandra-Gupta*, and the ſecond the reconciliation of *Chandra-Gupta* with *Mantri-Rácſhaſa*, the prime miniſter of his father.

The hiſtory of *Chandra-Gupta* is related, though in few words, in the *Viſhnu-purána*, the *Bhagawat*, and two other books, one of which is called *Brabatcatba*, and the other is a lexicon called *Camandaca*: the two laſt are ſuppoſed to be about fix or ſeven hundred years old.

* Eſſay on *Egypt*, in the *Aſiat. Reſ.* vol. III.

† *Aſiatick Reſearches*, vol. IV.

In the *Viṣṇu-purāṇa* we read, “unto *Nanda* shall be born nine sons; *Cotilya*, his minister, shall destroy them, and place *Chandra-Gupta* on the throne.”

In the *Bhagawat* we read, “from the womb of *Sudri*, *Nanda* shall be born. His eldest son will be called *Sumalya*, and he shall have eight sons more; these a *Brāhmen* (called *Cotilya*, *Vāṣṭayana*, and *Chanacya* in the commentary) shall destroy, after them a *Maurya* shall reign in the *Calī-yug*. This *Brāhmen* will place *Chandra-Gupta* on the throne.” In the *Brāhmattha* it is said, that this revolution was effected in seven days, and the nine children of *Nanda* put to death. In the *Camandaca*, *Chanacyas* is called *Viṣṇu-Gupta*. The following is an abstract of the history of *Chandra-Gupta* from the *Mudra-Rāśhasā*:

Nanda, king of *Prachi*, was son of *Maha Nandi*, by a female slave of the *Sudra* tribe: hence *Nanda* was called *Sudra*: He was a good king, just and equitable, and paid due respect to the *Brāhmens*: he was avaricious, but he respected his subjects. He was originally king of *Magada*, now called *South-Babar*, which had been in the possession of his ancestors since the days of *Crīṣṇa*; by the strength of his arm he subdued all the kings of the country, and like another *Paraśu-Rāma* destroyed the remnants of the *Cṣhettris*. He had two wives, *Ratnavati* and *Mura*. By the first he had nine sons, called the *Sumalyadicas*, from the eldest, whose name was *Sumalya*, (though in the *dramas*, he is called *Sarvārthasiddhi*); by *Mura* he had *Chandra-Gupta*, and many others, who were known by the general appellation of *Mauryas*, because they were born of *Mura*.

Nanda, when far advanced in years, was taken ill suddenly, and to all appearance died. He soon revived, to the great joy of his subjects: but his senses appeared to be greatly deranged, for he no longer spoke or acted as before. While some ascribed the monarch's imbecility to the effects of a certain poison, which is known to impair the faculties at least, when it proves too weak to destroy the life of those to whom it is administered, *Mantri-Rāśhasā*, his prime minister, was firmly persuaded, according to a notion very prevalent among the *Hindus*, that upon his master's death, some magician had entered into the lifeless corpse which was now reanimated and actuated by his presence. He, therefore, secretly ordered, that strict search might be made for the magician's own body: for as, according to the tenets of their superstition, this would necessarily be rendered invisible, and continue so, as long as its spirit informed another body; so he naturally concluded the magician had enjoined one of his faithful followers to watch it, until the dissolution of the spell should end the trance. In consequence of these orders, two men being discovered,

vered keeping watch over a corpse on the banks of the *Ganges*, he ordered them to be seized and thrown into the river, and caused the body to be burnt immediately. It proved to belong to *Chandra-das*, a king of a small domain in the western part of *India* beyond the *Windhyān* hills, the capital whereof is called *Vicat-palli*. This prince having been obliged to save himself by flight, from the *Yavanas* or *Greeks*, who had dispossessed him of his kingdom, had assumed, with the garb of a penitent, the name of *Suvid'ha*. *Mantri-Racshasa* having thus punished the magician for his presumption, left the country.

When *Nanda* recovered from his illness he became a tyrant, or, rather, having entrusted *Sacatara*, his prime minister, with the reins of government, the latter ruled with absolute sway. As the old king was one day hunting with his minister, towards the hills to the south of the town, he complained of his being thirsty, and quitting his attendants, repaired with *Sacatara* to a beautiful reservoir, under a large spreading tree, near a cave in the hills, called *Patalcandira*, or the passage leading to the infernal regions; there *Sacatara* flung the old man into the reservoir, and threw a large stone upon him. In the evening he returned to the imperial city bringing back the king's horse, and reported, that his master had quitted his attendants and rode into the forest; what was become of him he knew not, but he had found his horse grazing under a tree. Some days after *Sacatara* with *Vacranara*, one of the secretaries of state, placed *Ugradhanwa*, one of the younger sons of *Nanda*, on the throne.

The young king being dissatisfied with *Sacatara's* account of his father's disappearance, set about farther enquiries during the minister's absence, but these proving as little satisfactory, he assembled the principal persons of his court, and threatened them all with death, if, in three days, they failed to bring him certain intelligence what was become of his father. This menace succeeded, for, on the fourth day, they reported, that *Sacatara* had murdered the old king, and that his remains were concealed under a stone in the reservoir near *Patalcandra*; *Ugradhanwa* immediately sent people with camels, who returned in the evening, with the body and the stone that had covered it. *Sacatara* confessed the murder, and was thereupon condemned to be shut up with his family in a narrow room, the door of which was walled up, and a small opening only left for the conveyance of their scanty allowance. They all died in a short time, except the youngest son *Vicatara*, whom the young king ordered to be released, and took into his service. But *Vicatara* meditated revenge; and the king having directed him to call
some

some *Bráhma*n to assist at the *śraddha* he was going to perform, in honour of his ancestor, *Vicatara*, brought an ill-natured priest of a most savage appearance, in the expectation that the king might be tempted, from disgust at so offensive an object, to offer some affront to the *Bráhma*n, who, in revenge, would denounce a curse against him. The plan succeeded to his wish: the king ordered the priest to be turned out, and the latter laid a dreadful imprecation upon him, swearing at the same time, that he would never tie up his *śhicá* or lock of hair, till he had effected his ruin. The enraged priest then ran out of the palace exclaiming, whoever wishes to be king let him follow me. *Chandra-Gupta* immediately arose, with eight of his friends, and went after him. They crossed the *Ganges*, with all possible dispatch, and visited the king of *Népal*, called *Parvateswara*, or the lord of the mountains, who received them kindly. They entreated him to assist them with troops and money, *Chandra-Gupta* promising, at the same time, to give him the half of the empire of *Práchi*, in case they should be successful. *Parvateswara* answered, that he could not bring into the field a sufficient force to effect the conquest of so powerful an empire; but, as he was on good terms with the *Yavans* or *Greeks*, the *Sacas* or *Indo-Scythians*, the people of *Camboja* or *Gayni*, the *Ciratas* or inhabitants of the mountains to the eastward of *Népal*, he could depend on their assistance. *Ugradhanwa* enraged at the behaviour of *Chandra-Gupta*, ordered all his brothers to be put to death.

The matter, however, is related differently in other books, which state, that *Nanda*, seeing himself far advanced in years, directed that, after his decease, his kingdom should be equally divided between the *Sumalyadicas*, and that a decent allowance should be given to the *Mauryas* or children of *Mura*, but the *Sumalyadicas* being jealous of the *Mauryas*, put them all to death, except *Chandra-Gupta*, who, being saved through the protection of *Lunus*, out of gratitude assumed the name of *Chandra-Gupta*, or saved by the moon: but to resume the narrative.

Parvateswara took the field with a formidable army, accompanied by his brother *Virochana* and his own son *Malaya-Cetu*. The confederates soon came in sight of the capital of the king of *Práchi*, who put himself at the head of his forces, and went out to meet them. A battle was fought, wherein *Ugradhanwa* was defeated, after a dreadful carnage, in which he himself lost his life. The city was immediately surrounded, and *Sawartha-Siddhi*, the governor, seeing it impossible to hold out against so powerful an enemy, fled to the *Vindhyan* mountains, and be-

came

came an anchoret. *Racshasa* went over to *Parvateswara* *. *Chandra-Gupta*, being firmly established on the throne, destroyed the *Sumalya dicas*, and dismissed the allies, after having liberally rewarded them for their assistance: but he kept the *Yavans* or *Greeks*, and refused to give the half of the kingdom of *Prachi* to *Parvateswara*, who, being unable to enforce his claim, returned to his own country meditating vengeance. By the advice of *Racshasa* he sent a person to destroy *Chandra-Gupta*; but *Vishnu-Gupta*, suspecting the design, not only rendered it abortive, but turned it back upon the author, by gaining over the assassin to his interest, whom he engaged to murder *Parvateswara*, which the villain accordingly effected. *Racshasa* urged *Malaya-Cetu* to revenge his father's death, but though pleased with the suggestion, he declined the enterprize, representing to his counsellor that *Chandra-Gupta* had a large body of *Yavans* or *Greeks* in his pay, had fortified his capital, and placed a numerous garrison in it, with guards of *elephants* at all the gates; and finally, by the defection of their allies, who were either overawed by his power, or conciliated by his favour, had so firmly established his authority, that no attempt could be made against him with any prospect of success.

In the mean time *Vishnu-Gupta*, being conscious that *Chandra-Gupta* could never be safe so long as he had to contend with a man of *Racshasa's* abilities, formed a plan to reconcile them, and this he effected in the following manner: there was in the capital a respectable merchant or banker, called *Chandana-Das*, an intimate friend of *Racshasa*. *Vishnu-Gupta* advised *Chandra-Gupta* to confine him with his whole family: some time after he visited the unfortunate prisoner, and told him that the only way to save himself and family from imminent destruction, was to effect a reconciliation between the king and *Racshasa*, and that, if he would follow his advice, he would point out to him the means of doing it. *Chandana-Das* assented, though from the known inveteracy of *Racshasa* against *Chandra-Gupta*, he had little hope of success. Accordingly, he and *Vishnu-Gupta*, betook themselves privately to a place in the northern hills, where *Racshasa* had a country seat, to which he used to retire from the bustle of business. There they erected a large pile of wood, and gave out that they intended to burn themselves. *Racshasa* was astonished when he heard of his friends' resolution, and used every endeavour to dissuade them from it; but *Chandana-Das* told him, he

* *Racshasa* on hearing of the death of *Sacatara* returned, and became prime minister of *Ugra-dhanwa*.

was determined to perish in the flames with *Vishnu-Gupta*, unless he would consent to be reconciled to *Chandra-Gupta*. In the mean time the prince arrived with a retinue of five hundred men; when, ordering them to remain behind, he advanced alone towards *Racshasa*, to whom he bowed respectfully and made an offer of delivering up his sword. *Racshasa* remained a long time inexorable, but at last, overcome by the joint entreaties of *Vishnu-Gupta* and *Chandana-Das*, he suffered himself to be appeased, and was reconciled to the king, who made him his prime minister. *Vishnu-Gupta*, having succeeded in bringing about this reconciliation, withdrew to resume his former occupations; and *Chandra-Gupta* reigned afterwards many years, with justice and equity, and adored by his subjects.

By *Prachi* (in Sanscrit) or the east, is understood all the country from *Allahabad* to the easternmost limits of *India*: it is called also *purva*, an appellation of the same import, and *purob* in the spoken dialects. This last has been distorted into *purop* and *pruop* by European travellers of the last century. From *prachi* is obviously derived the name of *Prasii*, which the Greeks gave to the inhabitants of this country. It is divided into two parts: the first comprehends all the country from *Allahabad* to *Raj-mehal* and the western branch of the *Ganges*; the second includes *Bengal*, the greatest part of which is known in Sanscrit under the name of *Gancara-defa*, or country of *Gancara*, from which the Greeks made *Gangaridas* or *Gangaridai*, in the first case. *Gancara* is still the name of a small district near the summit of the *Delta*.

Perhaps from these two countries called *Purva* is derived the appellation of *Parvaim* in Scripture, which appears with a dual form. According to Arrian's *Periplus*, *Bengal* was famous for its highly refined gold, called *Keltin* in the *Periplus* and *Canden* or *Calden* to this day. It is called *Kurden* in the *Ayeen Ackbery*.

The capital city of *Prachi* proper, or the western part of it, is declared to be *Râj-griha*, or the royal mansion. According to the *purânas* it was built by a son of king *Prithu*, called *Haryacsha*. It was taken afterwards by *Bala-Rama*, the brother of *Crishna*, who rebuilt it, and assigned it as a residence for one of his sons, who are called in general *Baliputras*, or the children of *Bala*. From this circumstance it was called *Balipura*, or the town of the son of *Bala*: but in the spoken dialects it was called *Bali-putra*, because a *putra*, or son of *Bali*, resided in it. From *Bali-putra* the Greeks made *Palipatra* and *Pali-botbra*, and the inhabitants

habitants of the country, of which it was the capital, they denominated *Palibothri*, though this appellation more properly belongs to another tribe of *Hindus*, of whom I gave some account in a former essay on Egypt.

DIODORUS SICULUS, speaking of *Palibothra*, says, that it had been built by the Indian *Hercules*, who, according to *Megasthenes*, as quoted to *Arrian*, was worshipped by the *Suraseni*. Their chief cities were *Methora* and *Clisobora*; the first is now called *Mutra**, the other *Mugu-nagur* by the Musulmans, and *Calisa-pura* by the Hindus. The whole country about *Mutra* is called *Surasena* to this day by learned *Bráhmens*.

The Indian *Hercules*, according to *Cicero*, was called *BELUS*. He is the same with *BALA*, the brother of *CRISHNA*, and both are conjointly worshipped at *Mutra*; indeed, they are considered as one *Avatara*, or incarnation of *Vishnu*. *Bala* is represented as a stout man with a club in his hand. He is called also *Bala-Roma*. To decline the word *Bala* you must begin with *Balas*, which I conceive to be an obsolete form, preserved only for the purpose of declension, and etymological derivation. The first *a* in *Bala* is pronounced like the first *a* in *America*, in the eastern parts of *India*: but in the western parts, and in *Benares*, it is pronounced exactly like the French *e* in the pronouns *je*, *me*, *le*, &c. thus the difference between *Balas* and *Belus* is not very great. As *Bala* sprung from *Vishnu*, or *Heri*, he is certainly *Heri-cula*, *Heri-culas*, and *Hercules*. *Diodorus Siculus* says, that the posterity of *Hercules* reigned for many centuries in *Pali-bothra*, but that they did nothing worthy of being recorded; and, indeed, their names are not even mentioned in the *puránas*.

In the *Ganga-mabatmya*, in which all places of worship, and others of note, on the banks of the *Ganges*, are mentioned, the present town of *Raj-mehal* is positively declared to be the ancient city of *Raj-griha* of the *puránas*, the capital of *Prachi*, which afterwards was called *Bali-putra*.

Raj-griha, and *Raj-mehal* in *Persian*, signify the same thing. It is also called by the natives *Raj-mandalam*, and by *Ptolemy* *Palibothra-mandalon* for *Bali-putra-mandalam*: the first signifies the royal mansion, and the second the mansion of the *Bala-putras*. In a more extensive sense *mandalam* signifies the circle, or coun-

* In Sanscrit it is called *Mat'hura*.

try belonging to the *Bali-putras*. In this sense we say *Coro-mandel*, for *Cholo* or rather *Jala-mandal*.

Here I must observe, the present Raj-mehal is not precisely on the spot where the ancient Raj-griha, or Bali-putra, stood owing to the strange devastation of the Ganges in that part of the country for several centuries past. These devastations are attested by universal tradition, as well as by historical records, and the concurring testimony of RALPH, FITCH, TAVERNIER, and other European travellers of the last century. When I was at Raj-mehal in January last, I was desirous of making particular enquiries on the spot, but I could only meet with a few Bráhmens, and those very ignorant; all they could tell me was, that in former ages Raj-mehal, or Raj-mandal, was an immense city, that it extended as far as the eastern limits of Boglipooore towards Terriagully, but that the Ganges, which formerly ran a great way towards the N. E. and East, had swallowed it up; and that the present Raj-mehal, formerly a suburb of the ancient city, was all that remained of that famous place. For farther particulars they referred me to learned pundits who unfortunately lived in the interior parts of the country.

In the *Mudrá-rácshasa*, it is declared, that the city in which Chandra-Gupta resided, was to the north of the hills, and, from some particular circumstances that will be noticed hereafter, it appears that they could not be above five or six miles distant from it. Megasthenes informs us also, that this famous city was situated near the confluence of the Erannoboas with the Ganges. The Erannoboas has been supposed to be the Sone, which has the epithet of *Hirán-ya-baha*, or gold-wasting, given to it in some poems. The Sone, however, is mentioned as a distinct river from the Erannoboas, both by Pliny and Arrian, on the authority of Megasthenes: and the word *Hirán-ya-baha*, from which the Greeks made Erannoboas, is not a *proper* name, but an *appellative* (as the Greek *Chrysoorhoas*), applicable, and is applied, to any river that rolls down particles of gold with its sands. Most rivers in India as well as in Europe, and more particularly the Ganges, with all the rivers that come down from the northern hills, are famous in ancient history for their golden sands. The *Cossioanus* of Arrian, or *Cossogus* of Pliny, is not the river Coosy, but the *Cossianor Cattan*, called also *Cossay*, *Cossar*, and *Cassay*, which runs through the province of Midnapoor, and joins the remains of the western branch of the Ganges below Nanga-Cussan.

The Erannoboas, now the Coosy, has greatly altered its course for several centuries

turies past. It now joins the Ganges, about five and twenty miles above the place where it united with that river in the days of Megasthenes ; but the old bed, with a small stream, is still visible, and is called to this day *Puranah-bahah* the old Coofy, or the old channel. It is well delineated in Major RENNELL'S ATLAS, and it joins an arm of the Ganges, formerly the bed of that river, near a place called Nabob-gunge. From Nabob-gunge the Ganges formerly took an extensive sweep to the eastward, towards Hyatpoor, and the old banks of the river are still visible in that direction. From these facts, supported by a close inspection of the country, I am of opinion, Baliputra was situated near the confluence of the old Coofy with the Ganges, and on the spot where the villages of Mynyaree and Bissuntpoor-gola now stand ; the Ganges proceeding at that time in an easterly direction from Nabob-gunge, and to the north of these villages. The fortified part of Palibothra, according to Megasthenes, extended about ten miles in length, while the breadth was only two. But the suburbs, which extended along the banks of the Ganges, were, I doubt not, ten or fifteen miles in length. Thus *Debli*, whilst in a flourishing state, extended above thirty miles along the banks of the Jumna, but, except about the centre of the town, consisted properly of only a single street parallel to the river.

The ancient geographers, as Strabo, Ptolemy, and Pliny, have described the situation of Palibothra in such a manner that it is hardly possible to mistake it.

Strabo *, who cites Artemidorus, says, that the Ganges on its entering the plains of India, runs in a south direction as far as a town called Ganges, (*Ganga-puri*), now Allahabad, and from thence, with an easterly course as far as Palibothra, thence to the sea (according to the *Chrestomathia* from Strabo) in a southerly direction. No other place but that which we have assigned for the site of Baliputra, answers to this description of Artemidorus.

Pliny, from Megasthenes, who, according to Strabo, had repeatedly visited the court of Chandra-Gupta, says, that Palibothra was 425 Roman miles from the confluence of the Jumna with the Ganges. Here it is necessary to premise, that Megasthenes says the highways in India were measured, and that at the end of a *certain Indian measure* (which is not named, but is said to be equal to *ten stadia*,) there was a *cippus* or sort of *column* erected. No Indian measure answers to this but the Brahmeni, or astronomical coss, of four to a *yojana*. This is the Hindu

* B. XV. p. 719.

statute cofs, and equal to 1,227 British miles. It is used to this day by astronomers, and by the inhabitants of the Panjab, hence it is very often called the Panjabi-cofs: thus the distance from Lahor to Multan is reckoned, to this day, to be 145 Panjabi, or 90 common cofs.

In order to ascertain the number of *Brábmēni* cofs reckoned formerly between *Allababad* and *Palibothra*, multiply the 425 Roman miles by eight (for Pliny reckoned so many stadia to a mile), and divide the whole by ten (the number of stadia to a cofs according to Magasthenes), and we shall have 340 *Brábmēni* cofs, or 417.18 British miles: and this will bring us to within two miles of the confluence of the old Coofy with the Ganges.

Strabo informs us also that they generally reckoned 6000 stadia from *Palibothra* to the mouth of the Ganges; and from what he says, it is plain, that these 6000 stadia are to be understood of such as were used at sea, whereof about 1100 make a degree. Thus 6000 of these stadia give 382 British miles. According to Pliny they reckoned more accurately 6380 stadia or 406 British miles, which is really the distance by water between the confluence of the old Coofy with the Ganges, and Injellee at the mouth of the Ganges. Ptolemy has been equally accurate in assigning the situation of *Palibothra* relatively to the towns on the banks of the Ganges, which he mentions above and below it. Let us begin from the confluence of the *Tufo*, now the *Tonfe*, with the Ganges.

Tufo, now the *Tonfe*, (See Major *Rennel's* course of the Ganges.)

Cindia, now *Conteeah*.

Sagala (in Sanscrit *Suchela*, but in the vulgar dialects *Sokheila*) now *Vindya Vafni* near *Mirzapoor*.

Sanbalaca, in Sanscrit *Sammalaca*. It is now called *Sumbulpoor*, and is situated in an island opposite to *Patna*. It is called *Sabelpoor* in Major *Rennel's* Map of the course of the Ganges, but the true name is *Sumbulpoor*. It derived its celebrity, as well as its name, from games (for so the word *Sammalaca* imports) performed there every year in honour of certain heroes of antiquity. During the celebration of these games, *Sammalaca* was frequented by a prodigious concourse of merchants, and all sorts of people, inasmuch that it was considered as the greatest fair in the country. This place is mentioned in the *Haricshetra Maba-tmya*, which contains a description of the principal places of worship in North Bahar.

Boræca, now *Borounca*, opposite to *Bar* and *Rajowly*. Near *Mowah* on the *Byar*, about three miles from the Ganges, which formerly ran close by it. It was the

place

place of residence of the kings of the Bhur tribe, once very powerful in this country.

Sigala, Mongier. In *Ptolemy's* time it was situated at the junction of the river Fulgo with the Ganges, which he derives from the mountains of Uxentus, as that word probably is, from *Ecbac-dés*, or country of *Ecbac*, or, as it is written in the maps, *Etchbaur*: there are five or six places of this name in the mountains of Ramgur. The river Fulgo is the *Cacuthis* of *Arrian*, so called from its running through the country of *Cicata*. According to the same author, the *Andomatis* or *Dummoody* had its source in the same mountains.

The Ganges formerly ran in almost a direct line from Borounga to Monghier, the Fulgo uniting with it near this place; but since the river, taking a southerly course, has made great encroachments upon the northern boundary of Mongheir, which stretched out a considerable distance in that direction to a hill of a conical shape, which the stream has totally washed away. This fact is ascertained on the evidence of several Hindu sacred books, particularly of the *Gangama-balmia*; for, at the time this was written, one half of the hill still remained. *Sigala* appears to be corrupted from the Sanscrit *Sirbala*, a plough. At the birth of *CHRISHNA* a sheet of fire like the garments of the gods, appeared above the place called *Vindhyavafni*, near *Mirzapoor*. This appearance is called *Suchela*, or, in the vulgar dialects, *Sukbela* or *Sukbaila*, from which the Greeks made *Sagala*. This fiery meteor forced its way through the earth, and re-appeared near Monghier, tearing and furrowing up the ground like a plough, or *sirbala*. The place where it re-appeared is near Monghier, and there is a cave formed by lightning sacred to *Devi*.

Palibothra. Near the confluence of the old Coofy with the Ganges.

Asha-Gura, now *Jetta-gurry*, or *Jetta-coory*, in the inland parts of the country and at the entrance of a famous pass through the *Raj-mehal* hills.

Corygaxus, near *Palibothra*, and below it, is derived from the Sanscrit *Gauri-Gofchi*, or the *wildernefs of Gauri*, a form of *Devi*. The famous town of *Gaur* derives its name from it. It is called by *Nonnus* in his *Dionysiacs* *Gagus* for *Gofcha*, or the *Gofcha* by excellence. He says it was surrounded with a net-work, and that it was a journey of two days in circumference. This sort of inclosure is still practised in the eastern parts of *India*, to prevent cattle from straying, or being molested by tigers and other ferocious animals. The kings of *Persia* surround their *Haram*, when encamped with a net-work; and formerly, the *Persians* when besieging

sieging a town, used to form a line of contravallation with nets. The northern part only, towards *Cotwally*, was inhabited at that early period.

Tondota. *Tanda-baut* (*baut* is a market). This name in different MSS. of *Ptolemy*, is variously written, for we read also, *Condota* and *Sondota*: and unfortunately, these three readings are true *Hindu* names of places, for we have *Sanda-baut*, and *Cunda-baut*. However, *Tanda-baut*, or in *Sanscrit*, *Tandá-baut* appears to be *Tandá*, formerly a market place, called also *Tanrah*, *Tarrab*, *Tardab*, and *Tanda*. It is situated near the southern extremity of the high grounds of *Gaur*, on the banks of the old bed of the *Ganges*.

Tamalites. *Samal-baut*. No longer a *Hdt*, but simply *Samal-poore*. *Tamal-bat* is not a *Hindu* name, and, I suppose here, a mistake of the transcriber. It is between *Downapoor* and *Sooty*. (See *Rennel's* map.) The *Ganges* ran formerly close to these three places; and Mr. *Bernier*, in his way from *Benares* to *Cossimbazar*, landed at *Downapoor*.

Elydna is probably *Laudannab*.

Cartinaga, the capital of the *Cocconagæ*, or rather *Cottonaga*, is called now *Cuttunga*, it is near *Soory*; the *Portuguese*, last century, called it *Cartunga* and *Catrunga*.

Cartifina now *Carjuna*, or *Cajwana*, is near *Beudwau*. I shall just observe here, that the three last mentioned towns are erroneously placed, in *Mercator's* map, on the banks of the *Ganges*. *Ptolemy* says no such thing.

The next place on the banks of the *Ganges* is

Oreophonta. *Hararpunt* or *Haryárpunt* in the vulgar dialects; in *Sanscrit* it is *Hararparna* from *Hara* and *Arpana*, which implies a piece of ground consecrated to *Hara* or *Mabá-deva*. The word *Arpana* is always pronounced in the spoken dialects, *Arpunt*; thus they say, *Crisšnarpunt*. It is now *Rangamatty*. Here was formerly a place of worship, dedicated to *Mabá-deva* or *Hara*, with an extensive tract of ground appropriated to the worship of the God; but the *Ganges* having destroyed the place of worship, and the holy ground having been resumed during the invasions of the *Musulmans*, it is entirely neglected. It still exists, however, as a place of worship, only the image of the *Phallus* is removed to a greater distance from the river.

Aga-nagara, literally the *Nagara*, or town of *Aga*. It is still a famous place of worship in the *dwipa* (island or peninsula) of *Aga*, called, from that circumstance, *Aga-dwip*: the true name is *Agar-dwip*. A few miles above *Aga-nagara*, was the city called *Catadupe* by *Arrian* from *Cativa-dwip*, a place famous in the *purānas*. It is now called *Catwa*.

Ganges-

Ganges-regia, now *Satgauw*, near *Hoogly*. It is a famous place of worship, and was formerly the residence of the kings of the country, and said to have been a city of immense size, so as to have swallowed up one hundred villages, as the name imports: however, though they write its name *Satgauw*, I believe it should be *Sátgauw*, or the *seven villages*, because there were so many censurated to the Seven *Rishis*, and each of them had one appropriated to his own use.

Palura, now *Palorah*, or *Pollerah*, four or five miles to the west of *Oolbarya* below *Budge-budge*. A branch of the Ganges ran formerly to the west of it, and after passing by *Naga-basan*, or *Nagam-bapan*, fell into the sea towards *Ingellee*. From *Nagam-basan* the western branch of the Ganges was denominated *Cambufon Ostium* by the Greeks. This place is now ridiculously called *Nanga-bassan*, or the naked abode; whereas its true name is *Naga-basan*, or the abode of snakes, with which the country abounds.

Sir WILLIAM JONES says, “ the only difficulty in deciding the situation of Palibothra to be the same as Patali-putra, to which the names and most circumstances nearly correspond, arose from hence, that the latter place extended from the confluence of the Sone and the Ganges to the site of Patna, whereas Palibothra stood at the junction of the Ganges and the Erannoboas; but this difficulty has been removed, by finding in a classical Sanscrit book, near two thousand years old, that *Hiranyabahee*, or golden armed, which the Greeks changed into *Erannoboas*, or the river with a lovely murmur, was, in fact, another name for the Sona itself, though *Megasthenes*, from ignorance or inattention, has named them separately.”

But this explanation will not be found sufficient to solve the difficulty, if *Hiranyabaha* be, as I conceive it is not, the proper name of a river; but an appellative, from an accident common to many rivers.

Patali-putra was certainly the capital, and the residence of the kings of *Magadha* or south *Behar*. In the *Mudra Ráshafa*, of which I have related the argument, the capital city of *Chandra-Gupta* is called *Cusumapoor* throughout the piece, except in one passage, where it seems to be confounded with *Patali-putra*, as if they were different names for the same place. In the passage alluded to, *Ráshafa* asks one of his messengers, “ If he had been at *Cusumapoor*?” the man replies, “ Yes, I have been at *Patali-putra*.” But *Sumapon*, or *Phulwaree*, to call it by its modern name, was, as the word imports, a pleasure or flower garden, belonging to the kings of *Patna*, and situate, indeed, about ten miles W. S. W. from that city, but, certainly,

tainly, never surrounded with fortifications, which Annanta, the author of the *Mudra Râcshafa* says, the abode of Chandra-Gupta was. It may be offered in excuse, for such blunders as these, that the authors of this, and the other poems and plays I have mentioned, written on the subject of Chandra-Gupta, which are certainly modern productions, were foreigners; inhabitants, if not natives, of the Deccan; at least Ananta was, for he declares that he lived on the banks of the Godaveri.

But though the foregoing considerations must place the authority of these writers far below the ancients, whom I have cited for the purpose of determining the situation of Palibothra; yet, if we consider the scene of action, in connexion with the incidents of the story, in the *Mudra Râcshafa*, it will afford us clear evidence, that the city of Chandra-Gupta could not have stood on the site of Patna; and, a pretty strong presumption also, that its real situation was where I have placed it, that is to say, at no great distance from where Rajé-mehal now stands. For, first, the city was in the neighbourhood of some hills which lay to the southward of it. Their situation is expressly mentioned; and for their contiguity, it may be inferred, though the precise distance be not set down from hence, that king Nanda's going out to hunt, his retiring to the reservoir, among the hills near Patalcandara, to quench his thirst, his murder there, and the subsequent return of the assassin to the city with his master's horse, are all occurrences related, as having happened on the same day. The messengers also who were sent by the young king after the discovery of the murder to fetch the body, executed their commission and returned to the city the same day. The events are natural and probable, if the city of Chandra-Gupta was on the site of Rajé-mehal, or in the neighbourhood of that place, but are utterly incredible, if applied to the situation of Patna, from which the hills recede at least thirty miles in any direction.

Again, Patalcandara in Sanscrit, signifies the crater of a volcano; and in fact, the hills that form the glen, in which is situated the place now called Mootijarna, or the pearl-dropping spring, agreeing perfectly in the circumstances of distance and direction from Rajé-mehal with the reservoir of Patalcandara, as described in the poem, have very much the appearance of a crater of an old volcano. I cannot say I have ever been on the very spot, but I have observed in the neighbourhood, substances that bore undoubted marks of their being volcanic productions: no such appearances are to be seen at Patna, nor any trace of there having ever been a volcano there, or near it. Mr. Davis has given a curious description of Mootijarna,

illustrated

illustrated with elegant drawings. He informs us there is a tradition, that the reservoir was built by Sultan Suja: perhaps he only repaired it.

The confusion Ananta, and the other authors above alluded to, have made in the names of Patali-putra and Bali-putra, appears to me not difficult to be accounted for. While the sovereignty of the kings of Maghadha, or south Bahar, was exercised within the limits of their hereditary dominions, the seat of their government was Patali-putra, or Patya: but Janasandha, one of the ancestors of Chandra-Gupta, having subdued the whole of Prachi, as we read in the purānas, fixed his residence at Bali-putra, and there he suffered a most cruel death from Crīṣṇa and Bala Rama, who caused him to be split asunder. Bala restored the son, Sahadéva, to his hereditary dominions; and from that time the kings of Maghadha, for twenty-four generations, reigned peaceably at Patna, until Nanda ascended the throne, who, proving an active and enterprising prince, subdued the whole of Prachi: and having thus recovered the conquests, that had been wrested from his ancestor, probably re-established the seat of empire at Bali-putra; the historians of Alexander positively assert, that he did. Thus while the kings of Palibothra, as Diodorus tells us, sunk into oblivion, through their sloth and inactivity, (a reproach which seems warranted by the utter silence observed of the posterity of Bala Rama in the Purānas, not even their names being mentioned;) the princes of Patali-putra, by a contrary conduct, acquired a reputation that spread over all India: it was therefore natural for foreign authors, (for such at least Ananta was,) especially in compositions of the dramatic kind, where the effect is oftentimes best produced by a neglect of historical precision, of two titles, to which their hero had an equal right to distinguish him by the most illustrious. The author of Sacontala has committed as great a mistake in making Hastinapoor the residence of Dushmānta; which was not then in existence, having been built by Hasti, the fifth in descent from Dushmānta; before his time there was, indeed, a place of worship on the same spot, but no town. The same author has fallen into another error, in assigning a situation of this city not far from the river Malini, (he should rather have said the rivulet that takes its name from a village now called Malyani, to the westward of Lahore: it is joined by a new channel to the Ravy;) but this is a mistake; Hastinapoor lies on the banks of the old channel of the Ganges. The descendants of Peru resided at Sangala, whose extensive ruins are to be seen about fifty miles to the westward of Lahore, in a part of the country uninhabited. I will take occasion to observe here, that

Arrian

Arrian has confounded Sangala with Salgada, or Salgana, or the mistake has been made by his copyists. Frontinus and Polyænus have preserved the true name of this place, now called Calanore; and close to it is a deserted village, to this day called Salghéda; its situation answers exactly to the description given of it by Alexander's historians. The kings of Sangala are known in the Persian history by the name of Schangal, one of them assisted Afrasiab against the famous Caicosru; but to return from this digression to Patali-putra.

The true name of this famous place is Patali-pura, which means the town of Patali, a form of Devi worshipped there. It was the residence of an adopted son of the goddess Patali, hence called Patali-putra, or the son of Patali. Patali-putra and Bali-putra are absolutely inadmissible, as Sanscrit names of towns and places; they are used in that sense, only in the spoken dialects; and this of itself, is a proof, that the poems in question are modern productions. Patali-pura, or the town of Patali, was called simply Patali, or corruptly Pattiali, on the invasion of the Mussulmans: it is mentioned under that name in Mr. Dow's translation of Ferishta's history. It is, I believe, the Patali of Pliny. From a passage in this author compared with others from Ptolemy, Marcianus, Heracleota, and Arrian in his Periplus, we learn that the merchants, who carried on the trade from the Gangetic Gulph, or Bay of Bengal, to Perimula, or Malacca, and to Bengal, took their departure from some place of rendezvous in the neighbourhood of Point Godavery, near the mouth of the Ganga Godavery. The ships used in this navigation, of a larger construction than common, were called by the Greek and Arabian sailors, colandrophonta, or in the Hindustani dialect, coilan-di-pota, coilan boats or ships: for pota in Sanscrit, signifies a boat or a ship; and di or da, in the western parts of India, is either an adjective form, or the mark of the genitive case. Pliny has preserved to us the track of the merchants who traded to Bengal from Point Godavery.

They went to Cape Colinga, now Palmira; thence to Dandagula, now Tentugully, almost opposite to Fultati*; thence to Tropina, or Triveni and Trebeni, called Tripina by the Portuguese, in the last century; and, lastly, to Patale, called Patali, Patiali as late as the twelfth century, and now Patna. Pliny, who mistook this Patale for another town of the same name, situate at the summit of the Delta of the Indus, where a form of Devi, under the appellation of Patali, is equally worshipped to this day, candidly acknowledges, that he could by no means

* This is the only place in this essay not to be found in Rennell's Atlas.

reconcile the various accounts he had seen about Patale, and the other places mentioned before.

The account transmitted to us of Chandra-Gupta, by the historians of Alexander, agrees remarkably well with the abstract I have given in this paper of the Mudra Râcshasa. By Athenæus, he is called Sandracoptos, by the others Sandracottos, and sometimes Androcottos. He was also called Chundra simply; and, accordingly, Diodorus Siculus calls him Xandrames from Chandra, or Chandram in the accusative case; for in the western parts of India, the spoken dialects from the Sanscrit do always affect that case. According to Plutarch, in his life of Alexander, Chandra-Gupta had been in that prince's camp, and had been heard to say afterwards, that Alexander would have found no difficulty in the conquest of Prâchi, or the country of the Prasians had he attempted it, as the king was despised, and hated too, on account of his cruelty.

In the Mudra Râcshasa it is said, that king Nanda, after a severe fit of illness, fell into a state of imbecility, which betrayed itself in his discourse and actions; and that his wicked minister, Sacatara, ruled with despotic sway in his name. Diodorus Siculus and Curtius relate, that Chandram was of a low tribe, his father being a barber. That he and his father Nanda too, were of a low tribe, is declared in the Vishnu-purâna and in the Bhâgavat Chandram, as well as his brothers, was called Maurya from his mother Mura; and as that word * in Sanscrit signifies a barber, it furnished occasion to his enemies to asperse him as the spurious offspring of one. The Greek historians say, the king of the Prasû was assassinated by his wife's paramour, the mother of Chandra; and that the murderer got possession of the sovereign authority, under the specious title of regent and guardian to his mother's children, but with a view to destroy them. The purânas and other Hindu books, agree in the same facts, except as to the amours of Sacatara with Mura, the mother of Chandra-Gupta, on which head they are silent. Diodorus and Curtius are mistaken in saying, that Chandram reigned over the Prasû, at the time of Alexander's invasion: he was contemporary with Seleucus Nicator.

I suspect Chandra-Gupta kept his faith with the Greeks or Yavans no better than he had done with his ally, the king of Nepal; and this may be the motive

* See the Jutiviveca, where it is said, the offspring of a barber, begot by stealth, of a female of the Sudra tribe, is called Maurya: the offspring of a barber and a slave woman is called Maurya.

for Seleucus crossing the Indus at the head of a numerous army ; but finding Sandro-coptos prepared, he thought it expedient to conclude a treaty with him, by which he yielded up the conquests he had made : and, to cement the alliance, gave him one of his daughters in marriage *. Chandra-Gupta appears to have agreed on his part to furnish Seleucus annually with fifty elephants ; for we read of Antiochus the Great going to India, to renew the alliance with king Sophagafemus, and of his receiving fifty elephants from him. Sophagafemus, I conceive, to be a corruption of Shivaca-Séna, the grandson of Chandra-Gupta. In the purānas this grandson is called Afecavard-dhana, or full of mercy, a word of nearly the same import as Aféca-séna or Shivaca-séna ; the latter signifying ‘ he whose armies are merciful do not ravage and plunder the country.’

The son of Chandra-Gupta is called Allitrochates and Amitrocatés by the Greek historian. Seleucus sent an ambassador to him : and after his death the same good intelligence was maintained by Antiochus the son or the grandson of Seleucus. This son of Chandra-Gupta is called Varisāra in the purānas ; according to Parasara, his name was Dasaratha ; but neither the one nor the other bear any affinity to Amitrocatés : this name appears, however, to be derived from the Sanscrit Mitra-Gupta, which signifies saved by Mitra or the Sun, and therefore probably was only a surname.

It may be objected to the foregoing account, the improbability of a Hindu marrying the daughter of a Yavana, or, indeed, of any foreigner. On this difficulty I consulted the Pundits of Benares, and they all gave me the same answer ; namely, that in the time of Chandra-Gupta the Yavanas were much respected, and were even considered as a sort of Hindus, though they afterwards brought upon themselves the hatred of that nation by their cruelty, avarice, rapacity, and treachery in every transaction while they ruled over the western parts of India ; but that at any rate the objection did not apply to the case, as Chandra-Gupta himself was a Sudra, that is to say, of the lowest class. In the Vishnu-purāna, and in the Bhagawat, it is recorded, that eight Grecian kings reigned over part of India. They are better known to us by the title of the Grecian kings of Bactriana. Arrian in his Periplus, enumerating the exports from Europe to India, sets down as one article beautiful virgins, who were generally sent to the market of Baroche. The Hindus acknowledged that, formerly, they were

* Strabo, B. 45, p. 724.

not so strict as they are at this day; and this appears from their books to have been the case. Strabo does not positively say that Chandra-Gupta married a daughter of Seleucus, but that Seleucus cemented the alliance he had made with him by connubial affinity, from which expression it might equally be inferred that Seleucus married a daughter of Chandra-Gupta; but this is not so likely as the other; and it is probable the daughter of Seleucus was an illegitimate child, born in Persia after Alexander's conquest of that country.

Before I conclude, it is incumbent on me to account for the extraordinary difference between the line of the Surya Varśas or children of the sun, from Ichśwacu to Daśaratha-Rama, as exhibited in the second volume of the Asiatick Researches, from the Viśhnu-purana and the Bhagawat, and that set down in the Table I have given with this Essay. The line of the Surya Varśas, from the Bhagawat being absolutely irreconcilable with the ancestry of Arjuna and Crīṣṇa, I had at first rejected it, but, after a long search, I found it in the Ramayen, such as I have represented it in the table, where it perfectly agrees with the other genealogies. Daśaratha-Rama was contemporary with Paraśu Rama, who was, however, the eldest; and as the Ramayen is the history of Daśaratha-Rama, we may reasonably suppose, his ancestry was carefully set down and not wantonly abridged. I shall now conclude this Essay with the following remarks:

I. It has been asserted in the second volume of the Asiatick Researches, that Paraśara lived about 1180 years before Christ, in consequence of an observation of the places of the colures. But Mr. Davis having considered this subject with the minutest attention, authorizes me to say, that this observation must have been made 1391 years before the Christian æra. This is also confirmed by a passage from the Paraśara Sanhita, in which it is declared, that the Udāya or heliacal rising of canopus, (when at the distance of thirteen degrees from the sun, according to the Hindu astronomers,) happened in the time of Paraśara, on the 10th of Cartica; the difference now amounts to twenty-three days. Having communicated this passage to Mr. Davis, he informed me, that it coincided with the observation of the places of the colures in the time of Paraśara.

Another synchronism still more interesting, is that of the flood of Deucalion, which, according to the best chronologers, happened 1390 years before Christ. Deucalion is derived from Dēo-Calyún or Dēo-Caljún: the true Sanscrit name is Déva-Cála-Yavana. The word Cála-Yavana is always pronounced in conversation, and in the vulgar dialects, Cá-lyún or Cáljún: literally it signifies the devouring

ing Yavana. He is represented in the purānas, as a most powerful prince, who lived in the western parts of India, and generally resided in the country of Camboja, now Gazni, the ancient name of which, is Safni or Safna. It is true, they never bestow upon him the title of Déva; on the contrary, they call him an incarnate demon: because he presumed to oppose Crīṣhna; and was very near defeating his ambitious projects; indeed Crīṣhna was nearly overcome and subdued after seventeen bloody battles; and, according to the express words of the purānas, he was forced to have recourse to treachery: by which means Cālyún was totally defeated in the eighteenth engagement. That his followers and descendants should bestow on him the title of Déva, or Deo, is very probable; and the numerous tribes of Hindus, who, to this day, call Crīṣhna, an impious wretch, a merciless tyrant, an implacable and most rancorous enemy. In short, these Hindus, who consider Crīṣhna as an incarnate demon, now expiating his crimes in the fiery dungeons of the lowest hell, consider Cālyún in a very different light, and, certainly, would have no objection to his being called Deo-Cālyún. Be it as it may, Deucalion was considered as a Déva or Deity in the west, and had altars erected to his honour.

The Greek mythologists are not agreed about him, nor the country in which the flood, that goes by his name, happened: some make him a Syrian; others say, that his flood happened in the countries, either round mount Etna, or mount Athos; the common opinion is, that it happened in the country adjacent to Parnafus; whilst others seem to intimate, that he was a native of India, when they assert that he was the son of Prometheus, who lived near Cabul, and whose cave was visited by Alexander, and his Macedonians. It is called in the purānas Garnda-síhan, or the place of the Eagle, and is situated near the place called Shibi, in Major Rennell's map of the western parts of India; indeed, Pramathafi is better known in Sudia by the appellation of Sheba*. Deo-Cālyún, who lived at Gazni, was obliged on the arrival of Crīṣhna, to fly to the adjacent mountains, according to the purānas; and the name of these mountains was formerly Parnafa, from which the Greeks made Parnafus; they are situated between Gazni and Peshawer. Crīṣhna, after the defeat of Cālyún, desolated his country with fire and sword. This is called in Sanscrit Pralaya; and may be effected by water, fire, famine, pestilence, and war: but in the vulgar dialects, the word Pralaya,

* Bamian (in Sanscrit Vamiyan) and Shibr lay to the N.W. of Cabul.

signifies only a flood or inundation. The legends relating to Deo-Cályún, Prometheus and his cave, will appear in the next dissertation I shall have the honour to lay before the Society.

II. Megasthenes was a native of Persia, and enjoyed the confidence of Sibyrtius*, governor of Arachosia, (now the country of Candahar and Gazni,) on the part of Seleucus. Sibyrtius sent him frequently on the embassies to Sandrocuptos. When Seleucus invaded India, Megasthenes enjoyed also the confidence of that monarch, who sent him, in the character of ambassador, to the court of the king of Prachi. We may safely conclude, that Megasthenes was a man of no ordinary abilities, and as he spent the greatest part of his life in India, either at Candahar or in the more interior parts of it; and as, from his public character, he must have been daily conversing with the most distinguished persons in India, I conceive, that if the Hindus, of that day, had laid claim to so high an antiquity, as those of the present, he certainly would have been acquainted with their pretensions, as well as with those of the Egyptians and Chaldeans; but, on the contrary, he was astonished to find a singular conformity between the Hebrews and them in the notions about the beginning of things, that is to say, of ancient history. At the same time, I believe, that the Hindus, at that early period, and, perhaps, long before, had contrived various astronomical periods and cycles, though they had not then thought of framing a civil history, adapted to them. Astrology may have led them to suppose so important and momentous an event as the creation must have been connected with particular conjunctions of the heavenly bodies; nor have the learned in Europe been entirely free from such notions. Having once laid down this position, they did not know where to stop; but the whole was conducted in a most clumsy manner, and their new chronology abounds with the most gross absurdities; of this, they themselves are conscious, for, though willing to give me general ideas of their chronology, they absolutely forsook me, when they perceived my drift in a stricter investigation of the subject.

The loss of Megasthenes' works is much to be lamented. From the few scattered fragments, preserved by the ancients, we learn that the history of the Hindus did not go back above 5042 years. The MSS. differ; in some we read 6042 years; in others 5042 and three months, to the invasion of India by Alexander. Megasthenes certainly made very particular enquiries, since he noticed even the

* Arrian, B. 5. p. 203.

months. Which is the true reading I cannot pretend to determine; however, I incline to believe, it is 5042, because it agrees best with the number of years assigned by Albumazar, as cited by Mr. Bailly, from the creation to the flood. This famous astronomer, whom I mentioned before, had derived his ideas about the time of the creation and of the flood, from the learned Hindus he had consulted; and he assigns 2226 years, between what the Hindus call the last renovation of the world, and the flood. This account from Megasthenes and Albumazar, agrees remarkably well with the computation of the Septuagint. I have adopted that of the Samaritan Pentateuch, as more conformable to such particulars as I have found in the purānas; I must confess, however, that some particular circumstances, if admitted, seem to agree best with the computation of the Septuagint: besides, it is very probable, that the Hindus, as well as ourselves, had various computations of the times we are speaking of.

Megasthenes informs us also, that the Hindus had a list of kings, from Dionysius to Sandrocuptos, to the number of 153. Perhaps, this is not to be understood of successions in a direct line: if so, it agrees well enough with the present list of the descendants of Nausha, or Deo-Naush. This is what they call the genealogies simply, or the great genealogy, and which they consider as the basis of their history. They reckon these successions in this manner: from Nausha to Crīshna, and collaterally from Naush to Paricshita; and afterwards from Jara-sandha, who was contemporary with Crīshna. Accordingly the number of kings amounts to more than 153; but, as I wanted to give the full extent of the Hindu chronology, I have introduced eight or nine kings, which, in the opinion of several learned men, should be omitted, particularly six, among the ancestry of Crīshna.

Megasthenes, according to Pliny and Arrian, seems to say, that 5042 years are to be reckoned between Dionysius, or Deo-Nausha, and Alexander, and that 153 kings reigned during that period; but, I believe, it is a mistake of Pliny and Arrian; for 153 reigns, or even generations, could never give so many years.

Megasthenes reckons also fifteen generations between Dionysius and Hercules, by whom we are to understand, Crīshna and his brother Bala-Rama. To render this intelligible, we must consider Naush in two different points of view: Naush was at first a mere mortal, but on mount Meru he became a Déva or God, hence called Déva-Naush or Deo-Naush, in the vulgar dialects. This happened about fifteen generations before Crīshna. It appears that like the spiritual rulers of

Tartary

Tartary and Tibet (which countries include the holy mountains of Meru), Deo-Naufh, did not, properly speaking, die, but his soul shifted its habitation, and got into a new body whenever the old one was worn out, either through age or sickness. The names of three of the successors of Nausha have been preserved by Arrian; they are Spartembas, Budyas, and Cradevas. The first seems derived from the Sanscrit Prachinvau, generally pronounced Prachinbau, from which the Greeks made Spartembau in the accusative case; the two others are indubitably Sanscrit, though much distorted, but I suspect them to be titles rather than proper names.

III. This would be a proper place to mention the posterity of Noah or Satyav-rata, under the names of Sharma or Shama (for both are used,) Charma and Jyapti.

They are mentioned in five or six puránas, but no further particulars concerning them are related, besides what is found in a former essay on Egypt. In the list of the thousand names of Vishnu, a sort of Litany, which Bráhmens are obliged to repeat on certain days, Vishnu is called Sharma, because, according to the learned, Sharma or Shama, was an incarnation of that deity. In a list of the thousand names of Siva, as extracted from the Padma-purána, the 371st name is Shama-Jaya, which is in the fourth case, answering to our dative, the word praise being understood: Praise to Sharmaja, or to him who was incarnated in the house of Sharma.

The 998th name is Sharma-putradáya, in the fourth case also, praise to him who gave offspring to Sharma. My learned friends here inform me, that it is declared in some of the puránas, that Sharma, having no children, applied to Siva, and made Tapasya to his honour. Iswara was so pleased, that he granted his request, and condescended to be incarnated in the womb of Sharma's wife, and was born a son of Sharma, under the name of Baleswara, or Iswara the infant. Baleswara, or simply Iswara, we mentioned in a former essay on Semiramis; and he is obviously the Assur of Scripture.

In another list of the thousand names of SIVA (for there are five or six of them extracted from so many puránas) we read, as one of his names, BALESA ISA or ISWA'RA the infant. In the same list SIVA is said to be VARAHI-PALACA, or he who fostered and cherished VARAHI, the consort of VISHNU, who was incarnated in the character of Sharma. From the above passages the learned here believe that SIVA, in a human shape, was legally appointed to raise seed to SHARMA during an illness thought incurable. In this sense JAPHET certainly dwelt in the tents of SHEM. My chief pandit has repeatedly, and most positively, assured me, that the posterity of SHARMA to the tenth or twelfth generation, is mentioned in some of
the

the puránas. His search after it has hitherto proved fruitless, but it is true, that we have been able to procure only a few sections of some of the more scarce and valuable puránas. The field is immense, and the powers of a single individual too limited.

V. The ancient statues of the gods having been destroyed by the Mussulmans, except a few which were concealed during the various persecutions of these unmerciful zealots, others have been erected occasionally, but they are generally represented in a modern dress. The statue of Bala-Rama at Mutra has very little resemblance to the Theban Hercules, and, of course, does not answer exactly to the description of Megasthenes. There is, however, a very ancient statue of Bala-Rama at a place called Baladeva, or Baldeo in the vulgar dialects, which answers minutely to his description. It was visited some years ago by the late Lieutenant STEWART, and I shall describe it in his own words: "Bala-Rama or Bala-deva is represented there with a ploughshare in his left hand, with which he hooked his enemies, and in his right hand a thick cudgel, with which he cleft their skulls; his shoulders are covered with the skin of a tiger. The village of Baldeo is thirteen miles E. by S. from Muttra."

Here I shall observe, that the ploughshare is always represented very small, sometimes omitted; and that it looks exactly like a harpoon, with a strong hook, or a gaff, as it is usually called by fishermen. My pandits inform me also, that Bala-Rama is sometimes represented with his shoulders covered with the skin of a lion.

XIX.

REMARKS ON THE NAMES OF THE CABIRIAN DEITIES, AND ON SOME WORDS USED IN THE MYSTERIES OF ELEUSIS.

By Captain FRANCIS WILFORD.

IN the Adhuta-cosá we find the following legends, which have an obvious relation to the Deities worshipped in the mysteries of Samothrace.

In Patala (or the infernal regions) resides the sovereign queen of the Nagas (large snakes or dragons:) she is beautiful, and her name is ASYORUCA. There, in a cave, she performed Tapasya with such rigorous austerity, that fire sprang from her body, and formed numerous agni-tiraths (places of sacred fire) in Patala. These fires,

forcing their way through the earth, waters, and mountains, formed various openings or mouths, called from thence the flaming mouths, or juálá-muc'hi. By SAMUDR (OCEANUS) a daughter was born unto her called RAMA'-DE'VI. She is most beautiful; she is LACSHMI; and her name is A'SYO'TCERSHA' or A'SYO'TCRISHTA. Like a jewel she remains concealed in the ocean.

The DHARMA-RAJA, or King of Justice, has two countenances; one is mild and full of benevolence; those alone who abound with virtue, see it. He holds a court of justice, where are many assistants, among whom are many just and pious kings: CHITRAGUPTA acts as chief secretary. These holy men determine what is dharma and adharma, just and unjust. His (Dharma rajas) servant is called CARMALA: he brings the righteous on celestial cars, which go of themselves, whenever holy men are to be brought in, according to the directions of the DHARMA-RAJA, who is the sovereign of the Pitris. This is called his divine countenance, and the righteous alone do see it. His other countenance or form is called YAMA; this the wicked alone can see. It has large teeth, and a monstrous body. Yama is the lord of Patala; there he orders some to be beaten, some to be cut to pieces, some to be devoured by monsters, &c. His servant is called CASHMALA, who, with ropes round their necks, drags the wicked over rugged paths, and throws them headlong into hell. He is unmerciful, and hard is his heart: every body trembles at the sight of him. According to MNASEAS, as cited by the scholiast of Appollonius Rhodius, the names of the Cabirian Gods were AXIEROS, or CERES, or the EARTH; AXIOCERSA or PROSERPINE; AXIOCERSOS or PLUTO; to whom they add a fourth called CASMILLUS, the same with the infernal MERCURY.

AXIEROS is obviously derived from Afyoruca, or rather from Afyoru, or Afyorus; for such is the primitive form; which signifies literally, she whose face is most beautiful.

AXIOCERSA is derived from Afyotcerfa, a word of the same import with the former, and which was the sacred name of PROSERPINE. This is obviously derived from the Sanscrit Prasarparni, or she who is surrounded by large snakes and dragons. Nonnus represents her as surrounded by two enormous snakes, who constantly watched over her. She was ravished by Jupiter in the shape of an enormous dragon. She was generally supposed to be his daughter; but the Arcadians, according to Pausanias, insisted that she was the daughter of Ceres and Neptune; with whom the ancient mythologists often confound Oceanus. As she is declared, in the sacred books of the Hindus, to be the same with Lacshmi, her consort of course is Vishnu, who

who rules, according to the purānas, in the west, and also during the greatest part of the night. In this sense Viṣṇu is the Dis of the western mythologists, the black Jupiter of Statius; for Viṣṇu is represented of a black, or dark azure complexion: Pluto or Yama is but a form of Viṣṇu. The titles of Dis or Ades appear to me to be derived from A'di or A'din, one of the names of Viṣṇu. When Cicero says * *Terrena autem vis omnes atque natura, DITI patri dedicata est*; that is to say, That nature, and the powers or energy of the earth, are under the direction of Dis. This has no relation to the judge of departed souls, but solely belongs to Viṣṇu.

AXIOCERSOS, or in Sanscrit A's'yotcersa, or A's'yotcersas, was Pluto or Dis, and was meant for Viṣṇu. Viṣṇu is always represented as extremely beautiful; but I never found A's'yotcersa among any of his titles: he is sometimes called Atcersa, a word of the same import.

CASHMALA' or CASHMALA's is obviously the Casmilus of the western mythologists. The appellation of Cabiri, as a title of these deities, is unknown to the Hindus; and, I believe, by the Cabirian gods, we are to understand the gods worshipped by a nation, a tribe, or a society of men called Cabires. The Cuveras or Cuberas, as it is generally pronounced, are a tribe of inferior deities, possessed of immense riches, and who are acquainted with all places under, or above ground, abounding with precious metals and gems. Their history in the purānas, begins with the first Menu, and no mention is made in it of floods, at least my learned friends tell me so. They are represented with yellow eyes, like the Pingacshas (of whom we spoke in a former essay on Egypt,) and perhaps may be the same people; certain it is the Pingacshas worshipped the Cabirian gods. Diodorus Siculus says, that the invention of fire, and the working of mines, was attributed to them; and we find a Cabirus represented with a hammer in his hand.

At the conclusion of the mysteries of ELEUSIS, the congregation was dismissed in these words: Κοιξ, Ὅμ, Παξ; *Conx, Om, Pax*. These mysterious words have been considered hitherto as inexplicable; but they are pure Sanscrit, and used to this day by Brāhmens at the conclusion of religious rites. They are thus written in the language of the Gods, as the Hindus call the language of their sacred books, Canscha, Om, Pacsha.

CANSCHA signifies the object of our most ardent wishes.

OM is the famous monosyllable used both at the beginning and conclusion of a prayer, or any religious rite, like Amen.

* Cic. De Natura Deorum.

PACSHA exactly answers to the obsolete Latin word Vix: it signifies change, course, stead, place, turn of work, duty, fortune. It is used particularly after pouring water in honour of the Gods and Pitris. It appears also from HESYCHIUS,

I. That these words were pronounced aloud at the conclusion of every momentous transaction, religious or civil.

II. That when Judges, after hearing a cause gave their suffrages, by dropping of pebbles of different colours into a box, the noise made by each pebble was called by one of these three words (if not by all three), but more probably, by the word Pacsha; as the turn, or pacsha of the voting judge, was over.

When lawyers pleaded in a court of justice, they were allowed to speak two or three hours, according to the importance of the cause; and for this purpose, there was a Clepsydras, or water clock ready, which, making a certain noise at the end of the expired pacsha, vix, or turn, this noise was called Pacsha, &c.

The word Pacsha is pronounced Vacsh and vact in the vulgar dialects, and from it the obsolete Latin word vix is obviously derived. The Greek language has certainly borrowed largely from the Sanscrit; but it always affects the spoken dialects of India; the language of the Latins in particular does, which is acknowledged to have been an ancient dialect of the Greek.

XX.

ACCOUNT OF THE PAGODA AT PERWUTTUM.

EXTRACT OF A JOURNAL BY CAPTAIN COLIN MACKENZIE,

Communicated by MAJOR KIRKPATRICK.

THE Pagoda of Perwuttum, hitherto unknown to Europeans, is situated near the south bank of the Kistna, in a wild tract of country, almost uninhabited, except by the Chinfuars, about

Horizontal distance	{	65 miles W. of Inawada in Guntoor.
		63 miles E. N. E. of Canoul.
		And supposed to be 103 miles S. and ² E. of Hydrabad.

March

March 14th, 1794.—Having sent notice to the manager of the revenues (the principal officers of the circar) that I was desirous of seeing the Pagoda, provided there was no objection, I was informed at noon, that I might go in. The manager did not appear very desirous of paying any of the common civilities, but the Bráhmens crowded round to conduct me into the place. On entering the south gate, we descended by steps, and through a small door, to the inner court, where the temples are: in the centre was the Pagoda of *Mallecarjee*, the principal deity worshipped here. It is square, and the roof is terminated by a pyramid of steps; the whole walls and roof on the outside, are covered with brass plates, which have been gilt, but the gilding is now worn off. These plates are joined together by small bars and sockets, so that the whole may be taken off without damage; the spire or pyramid is not above thirty feet from the ground; the plates are plain, excepting a few embossed figures of women, some small ornaments, and on the friezes of the doors, the pannels of which are also plated. A statue with three legs is placed over each of the three entries; to support this uncommon figure, a post is carried up, which, at first sight, gives it the appearance of being empaled. On the west side of the pagoda inscriptions are engraved very neatly on three sheets of brass plates. Opposite to the south side, on a neat basement and pedestal ornamented with brazen figures of cows, is a slender pillar about twenty-four or thirty feet high, entirely composed of brass plates; it is bent; and from the joints, which plainly appear in the plating, it seems to be laid on a bamboo enclosed within. The four sides of the pedestal are covered with inscriptions, two in *Gentoo* or *Tellinga*, one in *Grindam*, and one in *Naggerim*: the first seven lines of the latter, in large well defined characters, I copied; five smaller lines followed, which I could not copy so exactly, the character being small, and the pedestal highly elevated. Some characters are also engraved on the fillet and ornamental parts of the moulding. From hence I was conducted to the smaller and more ancient temple of *MALLECARJEE*, where he is adored in the figure of a rude stone, which I could just distinguish through the dark vista of the front building on pillars. Behind this building an immense fig-tree covers with its shade the devotees and attendants, who repose on seats placed round its trunk and carpeted. Among these was one *Byraggy* who had devoted himself to a perpetual residence here; his sole subsistence was the milk of a cow, which I saw him driving before him; an orange coloured rag was tied round his loins, and his naked body was besmeared with ashes.

Some

Some of the Bráhmens came in the evening, with a copy of the inscriptions on two of the brass plates : they professed not to know exactly the meaning of them, being, they said, *Sanscrittum Jigum*. The same ignorance of the language of their religious books, seems to prevail through all these countries. The Bráhmens in attendance here, are relieved at stated times, from Autcowr and other places, as this place is unwholesome and the water bad. One of them said, he had books at Autcowr explanatory of the history of the Pagoda, and of the figures carved on the walls. Though they had never heard that any European had been here before, they did not express any surprise at this visit. Some of them applied for medical aid, but no fever prevailed among them at that time.

During the troubles of *Sevi-row*, the Chinsuars occupied the Pagoda, who stripped it of some ornaments and damaged it. Since *Sevi-row* had submitted, the revenues derived from the resort of pilgrims, are collected for the *canoul circar* by a manager or aumildar, who resides within the enclosure, as do the sebundies and peons, stationed here to protect the pilgrims, who come from all parts at certain stated festivals.

The red colour that predominates in the rock of this country, (which is a granite), is very remarkable. The superstratum, which, in many places, forms the naked superficies of the soil, is of a black colour, and from the smooth shining surface it frequently exhibits, appears to have been formerly in a state of fusion, but goes to no great depth ; the next stratum is composed of grains of a reddish colour, mixed with others of a white shining quartz, in greater proportion and of a larger size, so as to give the stone, when quarried, a greyish colour, which is more observable after it has been cut or chiseled. Iron is found in several parts of this mountainous tract, and so are diamonds, but the labour is so great, and the chance of meeting with the veins so very uncertain, that the digging for them has been long discontinued : the following places were mentioned as producing them, viz.

1. *Saringamutta* near *Jatta Reow*, on the other side the *Kisna*, where the ferry and road to *Amirabad* crosses. N. B. A Pagoda here.
2. *Routa Pungala*, two parous distant, near *Pateloh Gunga*.
3. *Goffab Reow*, twelve parous down the river. N. B. a ferry or ford there. After the heavy rains, when the rivers fall, they are found sometimes in the beds. This place is near the ruins of *Chundra-goompty-putnam*, formerly a great town on its north bank, and now belonging to *Amraritty*.

The

The weather being warm, I was desirous of getting over as much of this bad road as I could before noon : my tents and baggage had been sent off at four, A. M. and I only remained at the Pagoda, with the intention of making some remarks on the sculptures of its wall as soon as day light appeared. But the Bráhmens with the *Rajpoot amuldar* (who had hitherto shewn a shyness that I had not experienced in any other parts of the journey,) came to request, that, as I was the first European, who had ever come so far, to visit *Mallecarjee*, and had been prevented from seeing the object of their worship, by yesterday not being a lucky day, I would remain with them that day, assuring me, that the doors would be opened at ten o'clock. I agreed to wait till that hour, being particularly desirous of seeing by what means the light was reflected into the temple, which the unskilfulness of my interpreter could not explain intelligibly to my comprehension. Notice being at last given, at about half past eight, that the sun was high enough, the doors on the east side the gilt Pagoda were thrown open, and a mirror, or reflecting speculum, was brought from the *Rajpoot amuldar's* house. It was round, about two feet in diameter, and fixed to a brass handle, ornamented with figures of cows ; the polished side was convex, but so foul that it could not reflect the sun beams ; another was therefore brought, rather smaller and concave, surrounded by a narrow rim and without a handle. Directly opposite to the gate of the Pagoda is a stone building, raised on pillars, enclosing a well, and ending in a point ; and being at the distance of twelve or fourteen feet, darkens the gateway by its shadow, until the sun rises above it ; this, no doubt, has been contrived on purpose to raise the expectation of the people, and by rendering the sight of the idol more rare, to favour the imposition of the Bráhmens. The moment being come, I was permitted to stand on the steps in front of the threshold without, (having put off my shoes, to please the directors of the ceremony, though it would not have been insisted on,) while a crowd surrounded me, impatient to obtain a glimpse of the awful figure within. A boy, being placed near the door-way, waved and played the concave mirror, in such a manner, as to throw gleams of light into the Pagoda, in the deepest recess whereof was discovered, by means of these coruscations, a small, oblong, roundish white stone, with dark rings, fixed in a silver case. I was permitted to go no farther, but my curiosity was now sufficiently satisfied. It appears, that this god *Mallicarjee* is no other than the *Lingam*, to which such reverence is paid by certain casts of the Gentoos ; and the reason why he is here represented by stones unwrought, may be understood from the Bráhmens' account of the origin of this place

place of worship. My interpreter had been admitted the day before into the *sanctum sanctorum*, and allowed to touch the stone, which he says is smooth, and shining, and that the dark rings or streaks are painted on it; probably it is an agate, or some other stone of a filicious kind, found near some parts of the Kishna, and of an uncommon size. The speculums were of a whitish metal, probably a mixture of tin and brass.

These arts, designed to impose on the credulity of the ignorant superstitious crowd, seem to have been cultivated successfully here, and the difficulties attending the journey, with the wild gloomy appearance of the country, no doubt, add to the awful impression made on their minds.

The Bráhmens having given me the following account of the origin of the Pagoda, I insert it here, as it may lead to farther enquiry, and by a comparison with other accounts, however disguised by fable or art, some light may be thrown on the history and manners of a people so very interesting.

“ At Chundra-gumpty-patnum, twelve parous down the river on the north side, formerly ruled a Raja of great power, who, being absent several years from his house, in consequence of his important pursuits abroad, on his return fell in love with his own daughter, who had grown up during his long absence. In vain the mother represented the impiety of his passion; proceeding to force, his daughter fled to these deserts of Perwuttum, first uttering curses and imprecations against her father; in consequence of which, his power and wealth declined; his city, now a deserted ruin, remains a monument of divine wrath; and himself, struck by the vengeance of Heaven, lies deep beneath the waters of Puttela-gunga, which are tinged green by the string of emeralds that adorned his neck.” Here is a fine subject for a fable; it may, however, furnish a clue to history, as the ruins of this once opulent city are still said to exist. This account of the origin of the devotion here, bears a great resemblance to that of the pilgrimage to Monferrat in Catalonia, mentioned in *Baretti's Travels*.

“ The princess was called *Mallica-davi*, and lived in this wilderness. Among her cattle was a remarkably fine black cow, which she complained to her herdsmen, never gave her milk. He watched behind the trees, and saw the cow daily milked by an unknown person. *Malica-Divi* informed of this, placed herself in a convenient situation, and beholding the same unknown person milking the cow, ran to strike him with an iron rod or mace, which she held in her hand; but the figure suddenly disappeared, and to her astonishment, nothing
“ remained

“remained but a rude shapeless stone. At night the god appeared to her in a dream, and informed her, he was the person that milked the cow; she, therefore, on this spot, built the first temple that was consecrated to the worship of this deity represented by a rude stone.” This is the second temple that was shewn yesterday, where he is exhibited in the rude state of the first discovery, and is called *Mudi-Mulla-Carjee* or *Mallecarjee*; the other temples were afterwards built in later times, by Rajas and other opulent persons. The lingam, shewn by reflected light in the gilded temple, has also its history and stories, still more absurd and wonderful, attached to it. It was brought from the (now deserted) city of Chundra-goompty-patnam. The princess, now worshipped as a goddess, is also called *Brama-Rumbo*, or *Strichillum-Rumbo*, from whence this Pagoda is called *Strichillum*. She delights peculiarly in Perwuttum, but is called by eighteen other names.

It may be proper here, to take notice of the carvings on the outer walls, as they are remarkable for their number, and contain less of those monstrous figures than other buildings of this kind. It would appear that the stories represented on several divisions, or compartments, are designed to impress on the mind some moral lesson, or to heighten the reverence inculcated for the object of adoration here. The customs and manners of the Gentoos; their arms, dress, amusements, and the parade and state attendant on their sovereigns, in former times, might be elucidated by a minute inspection of the figures represented on the walls; drawings of which, and translations of, or extracts from, any books or inscriptions that might be found, having relation to them, would be useful to that end.

The several Pagodas, Choultries, and Courts, are enclosed by a wall 660 feet long and 510 feet broad. In the centre of this enclosure are the more ancient buildings already described. Below the level of the principal gate, a road or avenue, twenty-four feet broad, goes parallel without to this wall, from whence is a descent by steps to gardens on the north side; from the east gate a double colonade runs, 120 yards, forming a street; an oblong tank is on the west side, from which water was conducted to reservoirs in the gardens, but these are now entirely neglected; the town or pettah covered the south side, and the S. E. angle; the form of the inclosure is an oblong square, with one square projection to the west. The great gateways are, as usual, supported by stone pillars, leaving apartments for the guard on each side the entrance: they are covered with spires of brick work; and

this, with the pillar between, being retired some feet within the line of walls, shews that they are of more modern construction, though the spires are rather ruinous: and it may be proper to remark, that these brick spires, formed of several stories with small pilasters, of no regular order, and the niches ornamented with figures in plaister, seem to be the latest invention used in the Pagodas; those with pyramidal roofs, step-fashion, and the summit crowned, sometimes by a globe, are more ancient and of several sizes, so low as four feet in height; built of stone, and seem to be the first improvement on the early rude temples of rough stones set up on end to cover the image of the god. These first attempts are frequently seen among the hills. The wall of the inclosure is built of hewn blocks of the greyish stone, from six to seven feet long by three high, exactly squared and laid together, and about eight or nine rows of these, from the level of the interior pavement, leaves its height, from twenty-four varied to twenty-seven feet; the whole of the wall on the outside (being 2,100 feet by twenty-four, allowing 240 for the opening of the gates and square projection on the west side) is covered with carvings and figures sculptured out of the block. Every single block has a rim, or border, raised round it, within which, the carving is raised on a level with the rim, designed evidently, to protect the figures from injury, while raised upon the wall.

The first and lowest row of these stones is covered with figures of elephants, harnessed in different ways, as if led in procession, many of them twisting up trees with their trunks. 2nd.—The second row is chiefly occupied with equestrian subjects; horses led ready saddled and their manes ornamented, others tied up to pillars, some loose; a great many horsemen are represented, engaged in fight, at full gallop, and armed with pikes, swords, and shields; others are seen hunting the tyger, and running them through with long spears. The riders are represented very small in proportion to the horses, probably to distinguish the size of the latter, as a smaller cast seems intended to be represented among the led horses, where a few are seen lower in size, something resembling the Acheen breed of horses. All these figures are very accurately designed. It is remarkable, that several figures are represented galloping off as in flight, and at the same time drawing the bow at full stretch; these Parthian figures seem to have entirely dropped the bridle, both hands being occupied by the bow; some of them are seen advancing at full speed, and drawing the bow at the same time. This mode appears to have been practised by the Indians, as it is highly probable, that the arts of common life

life only, are here represented in the lower row. 3d.—On the third row, a variety of figures are represented, many of them hunting pieces; tygers (and in one place a lion) attacked by several persons; crowds of people appear on foot, many armed with bows and arrows, like the Chinfuars; many figures of Byrraggies or Jogies are seen distinguished by large turbans, carrying their sticks, pots, and bundles, as if coming from a journey; some leaning on a stick as if tired, or decrepid from age; others approaching with a mien of respect and adoration.—The fourth, fifth, sixth, and seventh rows, are filled (as it would appear from the scanty information I was able to obtain) with representations of several events regarding the deities of the place, or expressive allegories of the moral and religious dogmas of the Bráhmens: and probably some may record particular events of real history.—The eighth has fewer carvings than the rest, some stones are occupied by a single flower of large size, perhaps intended for the sacred flower (*lotos*): and some, though but a few, by the figure of a god.—The ninth, or upper row, is cut into openings, in the manner of battlements, and the stones, between each of these apertures, are alternately sculptured with the figures of the Lingam, and a cow shaded by an umbrella, to signify its pre-eminence.

To examine the particular groups represented, would have taken up much more time than I could spare, but I particularly noticed the following: 1st, a figure with five heads, weighing two figures in a balance; one of them appears to have a little out-balanced the other. From what I could understand from the Bráhmens, this was meant for BRA'HMA weighing *Viṣṇu* and *Siva*, or *Sulramica*; the latter is heaviest. This alludes to the different sects, or followers of *Viṣṇu* and *Siva*. Another figure also represented two persons weighed in a balance, both equal, but the explanation of this I could not learn.

Second. Several people pulling at the head and tail of a great snake, which is twisted round a *Lingam*. This I had seen carved on the walls of the pagoda of *Wentigmetta*, near *Sidout*, in September 1792.

Third. Elephants treading a man under foot.

Fourth. A naked figure of a woman approaching the *Lingam*: in her left hand she holds the small pot used for ablution; in her right a string of beads (*Ingam valu*): a hand appears issuing from the *Lingam*.

The *Bráhmens* explained the meaning of this sculpture, “ACUMA DEVI naked, “ approaching to worship the *Lingam* a hand appears suddenly from it, waving,

“ and

“ and a voice is heard, forbidding her to approach in that indecent situation.” A maxim of decency, in the height of religious zeal is here inculcated.

Fifth. The story of MALLECARJEE and the sacred cow (the origin of the pagoda) is represented in two different places. The cow appears with its udder distended over the *Lingam*, which differs from the account of the *Bráhmens* in not being represented as a rough stone; a person near a tree is seen, as if looking on; a kind of division seems to separate these figures from a woman, in a sitting posture, with an umbrella held over her, to denote superior rank; on the right, behind a tree, is a figure very indistinct, probably intended to represent the herdsman: the trees are badly executed.

Sixth. Among the number of animals in the procession on the second and third row, two camels are represented with a person on each, beating the *nagra*, or great drum.

Seventh. In one compartment the figure of an alligator, or crocodile, with its scales and monstrous teeth is seen, running open mouthed, to devour a person lying before it; two women are standing near a third seated; they are looking on a child near them. I got no explanation of this.

Eighth. An elephant and tyger fighting.

The sculptures on the south and east sides are in good preservation; those on the west and north are more injured by the weather. The age of the first temple might perhaps be discovered from the inscriptions, if a translation of them could be obtained. I could gain no information on this head; but I suspect the building to be of higher antiquity than the knowledge, or, at least, than the use of gunpowder among these people; because among so great a variety of arms as are sculptured upon the walls, swords, bows, pikes, arrows, and shields of a round figure, the matchlock is not to be found, though a weapon so much in use among the *poligars*. On enquiring of the *Bráhmens* the meaning of these carvings, one of them replied, “ it was to shew how the Gods lived above;” but indeed they seem to have lost all traces of any knowledge they may have formerly possessed, and to be sunk into the profoundest state of ignorance.

XXI.

REMARKS ON THE PRINCIPAL ÆRAS AND DATES OF THE ANCIENT HINDUS.

By Mr. JOHN BENTLEY.

THE confusion and darkness that pervade and overspread the Hindu chronology, I am inclined to think, proceed from two different causes: the one, owing to the fancy of their Bráhmens and poets, in disguising and embellishing their history with allegory and fiction; the other, to the ignorance of the modern Hindus, who, not able to discern the difference between the several æras and modes of dating, which were made use of by their ancient historians, Bráhmens, and poets, in recording past events, have blended the whole together, into one mass of absurdity and contradiction.

At this day, it is not easy to discover the meaning of all the different modes of dating formerly in use. It appears, however, from historical facts, that they were mostly, if not all, nominally the same, but essentially different in other respects:—they all went under the appellation of yugs, divine ages, Manwantaras, &c. but the yugs, divine ages, Manwantaras, &c. of the astronomers were different in point of duration from those of the Bráhmens and poets, and those of the Bráhmens and poets were, in like manner, different from those of others: hence it becomes absolutely necessary that we know the difference between each, that is, the astronomic, the poetic, &c. &c. from each other before we can attempt to analyze the Hindu chronology on true principles. It is from this mode alone that we can discern truth though disguised by fiction; and, until the gordian knot, made fast by the hand of modern times, be untied, much will remain in obscurity.

The astronomic yugs, divine ages, &c. are the only periods in which the real number of years meant, are not concealed: it may not therefore be improper before I proceed farther to state what these periods are, and their duration.

The Calpa is the greatest of all the astronomical periods, and the duration of it is 4320000000 years. This period is composed, or made up, of the lesser yugs, &c. in the following manner.

Four Yugs, viz. a Satya, a Treta, a Dwapar, and a Caliyug, make one divine age

or

or Maha yug; 71 Maha yugs with a Sandhi, equal to a Satya yug, make 1 Manwantara; and 14 Manwantaras compose a Calpa, at the commencement of which there is also a Sandhi, equal to a Satya yug. The duration of each period is as follows:

Sandhi at the beginning of the Calpa	-	-	1728000
Satya yug	-	-	728000
Treta yug	-	-	1296000
Dwapar yug	-	-	864000
Cali yug	-	-	432000
One divine age or Maha yug			4320000
71 Maha yugs	-		306720000
Add a Sandhi	-		1728000
A Manwantara			308448000
14 Manwantaras	-	-	4318272000
A Calpa, or a grand period	-	-	4320000000

The Calpa is an anomalistic period, at the end of which the Hindu astronomers say that the places of the planets' nodes and apfides will be precisely the same as at the beginning of it; and the commencement of it was when the sun, moon, and all the planets, nodes, and apfides, were in a line of conjunction, in the beginning of Aries, or 1955,884,897 years ago: therefore fix Manwantaras, 23 Maha yugs of the seventh Manwantara, and as far as the 220897th year of the Cali yug, of the twenty-fourth Maha yug, are now (A° 1796) expired of the Calpa. The ancient astronomers, most probably, for the sake of convenience, made the present Cali yug of the Hindus, of which there are now 4897 years expired, to commence when just the first half, or 216000 years were elapsed of the above mentioned Cali yug, of the twenty-fourth Maha yug; and we are now only in the 4898th year of the second half of that period. I shall therefore, by way of distinction, call the present Cali yug the "Astronomic Æra."

The Bráhmens and poets, in imitation of the astronomic periods above given, invented others for their history and poetry. These I shall distinguish by the name of

of "Poetic Ages," or æras, because they are embellished by fiction, and covered over with a mysterious veil: *nominally*, they appear the same as the astronomic periods, but historical facts prove them to be essentially different in point of duration; one astronomic year being equal to 1000 poetic ones; hence,

	<i>Years.</i>	<i>Real Years.</i>
A Poetic Satya yug	of 1728000 is only 1728	
Treta yug	of 1296000	1296
Dwapar yug	of 864000	864
Cali yug	of 432000	432

The first of these Poetic Ages, or Satya yug, commenced at the creation, and the rest in succession, agreeable to the following short chronological table, continued down to the present time.

CHRONOLOGICAL TABLE OF ANCIENT ÆRAS, &c.

	<i>Poetical Æras.</i>	<i>Year of the World.</i>	<i>Astronomic Æra.</i>
<i>Satya Yug, or Golden Age.</i>	0	Adam 0	Cali yug * 0
	1		1
	130	Seth born 130	151
	905		751
	906		823
	1056	Noah born 1056	824
	1656	Flood 1656	882
	1728	1728	Pradyota 1000
<i>Treta Yug, or Silver Age.</i>	1	1729	Budha I. 1002
	59	1787	1043
	177	Nimrod 1905	1101
	Icshwachu & Budhu 179	1907	Sifunga 1139
	220	Abraham 1948	Nanda 1499
	278	Noah's death 2006	Chandra-Gupta 1599
	316		Pushpamitra 1736
	676		Vasudeva 1848
	776		1853
	913		1920
	1025		1920
	Rama 1030		1925
	1097	Parasara 2825	1930
	1097	Yudhishthir 2825	2075
	Valmic 1102	Vyasa 2830	2119
	1107	Paricshit 2835	
	1152		
	1296	3024	
<i>Dwapar Yug, or Brazen Age.</i>	Cusha 1	3025	
	74	3098	Balin 2120
	530	3554	Chandrabija 2193
	576	3600	2649
	676	3700	2695
	776	3800	2795
	864	3888	2895
			2983

* The Cali yug commenced in February, in the 906th year of the world.

CHRONO-

CHRONOLOGICAL TABLE OF ANCIENT ÆRAS, &c. continued.

	Poetical Æras.	Year of the World.	Astronomic Æra.
<i>Cali Yuga, or Iron Age.</i>	1	3889	2984
	62	3950	Vicramaditya 3045
	95	3983	Devapala 3078
	119	4007	3102
	185	4073	Narayanpala 3168
	197	4085	Saca 3180
	200	4088	3183
	300	4188	3283
	432	4320	3415
<i>Satya Yuga, or the Ild divine Age.</i>	1	4321	3416
	185	4505	Varaha 3600
	200	4520	3615
	300	4624	3715
	400	4720	3815
	600	4920	4015
	800	5120	4215
	1000	5320	4415
	1200	5520	4615
	Current year 1483	Current year 5803	Current year 4898

In the preceding table, I have placed the beginning of the astronomic æra of the Cali yug, of which 4897 years were expired in April last, in the 906th year of the world; at which time 905 years were elapsed of the Satya yug of the Poets, reckoning from its commencement at the creation: hence it is self-evident that the notion of the modern Hindus, who have confounded the fabulous or fictitious ages of their Poets with the astronomic periods merely from a similarity of names, are not only erroneous, but even quite opposite to the true intent and meaning of the ancient Hindu writers themselves; who, it may be proved, have sometimes adopted the astronomic æra of the Cali yug, during the periods of the Treta and Dwapar yugs of the Poets, and made use of either æra, (astronomic or poetic, and sometimes both), according as it suited their fancy, for recording not only past events in general, but even one and the same event.

The first instance I shall mention by way of proof is that of BUDHA, the ancient MERCURY of the Hindus. The late Sir WILLIAM JONES, whose name can never be mentioned but with the highest esteem, places the ancient BUDHA, or MERCURY, who married ILA a daughter of NOAH, about the beginning of the Treta yug; contemporary with JISC'HWACU the son of NOAH. Now the Hindus in general, and the Bhagawatamrita in particular, say that "BUDHA became visible the 1002d year of the Cali yug" (astronomic æra): let us therefore examine this matter a little, and see whether this is not the same BUDHA who is recorded as living near the beginning of the Treta yug of the Poets; contemporary with the son of NOAH. First the 1002d year of the Cali yug was the 1907th from the Creation. Secondly, NOAH by the Mosaick account, did not die before the 2006th year from the Creation, or about 100 years after the appearance of BUDHA. Thirdly, and lastly, there was but one BUDHA in the time of NOAH; and he is said to have married ILA, the daughter of NOAH: hence we may safely infer, that the BUDHA, who appeared in the 1002d year of the Cali yug, or 1907 of the Creation, was the very same that married Noah's daughter, and is recorded as living near the beginning of the Treta yug of the Poets. Here we may plainly see, that the events, as well as the time, perfectly coincide; for the 1002d year of the Cali yug corresponds not only with the latter days of NOAH, but also with the 179th year of the Treta yug of the poets, as may be seen from the preceding table.

I shall now mention another instance, which, while it confirms what I have above said, respecting the ancient Hindu writers or historians, adopting the astronomic æra of the Cali yug, at different times during the periods of the Treta and Dwapar yugs of the Poets, will at the same time explain the cause of all the confusion and absurdities which at present appear in the ancient history and chronology of the Hindus.

VALMIC and VYASA were two ancient contemporary bards, whom the modern Hindus separate by no less a period than 864000 years, believing VALMIC to have lived near the close of the Treta yug, and VYASA near the close of the Dwapar yug: and though they cannot but admit that the two bards had frequently conversed together on the subject of their poems, yet they will rather account for it by supposing a miracle, than assign any real or probable cause for an absurdity, so contradictory, not only to nature, but to common sense.

VYASA was the son of PARASARA, an ancient astronomer, and PARASARA was

was the grandson of VASISHTA, who was also an astronomer, and piaboita or family priest to RAMA, king of Audhya or Oud, who reigned, according to the Hindu accounts, near the close of the Treta yug of the Poets. PARASARA, the father of VYASA, was therefore about one or two generations after RAMA. But, from the observed places of the equinoxes and solstices in the year 3600 of the present Cali yug, by one VARAHA, an astronomer, and their places as mentioned by PARASARA, it would appear, that the observations of the latter must have been about 1680 years before VARAHA; which will therefore place PARASARA about the year 2825 of the world, corresponding to the 1097th of the Treta yug of the Poets; and as PARASARA may have been then between thirty and forty years old, we may place RAMA about the year 1030; and VALMIC and VYASA about the year 1102 of the Treta yug of the Poets, being the 2830th of the Creation. These years may not be the exact times in which they respectively lived; but, I believe, they do not vary from the truth above forty or fifty years either way, and nearer than this we cannot well expect to bring them.

By having thus obtained the respective times or years in which RAMA, PARASARA, VYASA, and VALMIC lived, we have ascertained a point of the utmost importance to the chronology of the Hindus.

The war of MAHABARAT took place in the time of VYASA, in consequence of which he wrote his epic poem called the Mahabarat, and on the composition of which he consulted VALMIC. VYASA was therefore contemporary with CRISHNA, ARJUN, ABHIMARIYIR, YUDHISHTHIR, PARICSHIT, and others engaged in that famous war.

Shortly after that war, and towards the close of the reign of PARICSHIT, the Hindu historians of that part of India, where PARICSHIT reigned, began to lay aside the Poetic æras altogether, and to adopt the astronomic æra of the Cali yug, of which near 2000 years were then expired.

This circumstance of laying aside the poetic æras, and adopting the astronomic, it seems in the course of ten or twelve centuries after became either totally forgotten, or misunderstood, so much so in fact that the very adoption of the astronomic æra has been taken, by the modern Hindus, for the actual beginning of the Cali yug itself. This erroneous notion, together with those which they entertained respecting the duration of the different ages, the Satya, Treta, and Dwapar yugs of their poets, which they firmly believe to be the same with the astronomic periods of the same name, and to have ended accordingly before the present Cali yug

yug commenced, has been the cause of all the confusion which appears in their ancient history and chronology. For finding the immediate successor of PARICSHIT mentioned in ancient history as reigning in the Cali yug, they concluded, though erroneously, that PARICSHIT must therefore have reigned at the close of the Dwapar yug; and from this circumstance, having removed PARICSHIT from the close of the Treta yug down to the close of the Dwapar yug, they were then obliged to place YUDHISHTHIR, ARJUN, CRISHNA, HABIMANYU, and VYASA, at the close of the Dwaper yug also; by which means they separate VYASA, from VALMIC his contemporary and friend, and the rest who were engaged in the war of BHARAT, from their proper places in history, by 864000 years of the poets.

It is owing to the same erroneous notions respecting the Cali yug, that the modern Hindus have thrown the ancient history and chronology of the kings of Magadha or Bahar into confusion. For having discovered that SAHADEVA, the son of JARASANDHA, was contemporary with YUDHISHTHIR, they concluded that as they had already placed YUDHISHTHIR at the close of the Dwapar yug, SAHADENA must be at the beginning of the Cali yug; and therefore, without further ceremony, not only removed SAHADEVA but his nineteen successors, who formed a dynasty in the family of JARASANDHA from the proper period in history (between the years 1920 and 2193 of the Cali yug), and placed them immediately before PRADYOTA, who began his reign in the 1000th year of the Cali yug. This removal was productive of two absurdities at once, both of which are particularly noticed by the late Sir WILLIAM JONES in his chronology of the kings of Magadha. The one, that in consequence of placing the names before PRADYOTA they were obliged to assert that the twenty princes reigned one thousand years, that is, from the beginning of the Cali yug in the year of 906 of the Creation down to the 1905th; so that they must have then reigned as well during the flood as before and after it. The other, that as a chasm had been formed in that part of the history from which the twenty reigns were removed, in order to make up that chasm as well as they could, they were obliged to assert that a dynasty of four princes of the Canna race, the first of whom (VASUDEVA) came to the throne in the year of the world 2753, or 1848 of the Cali yug, reigned no less than 345 years.

Now as YUDHISHTHIR was the uncle and immediate predecessor of PARICSHIT, and consequently contemporary with PARASARA the father of VYASA; it

it is clear that both YUDHISHTHIR and SAHADEVA must have reigned about the year 2825 of the world: which is about seventy-two years after the reign of the above VASUDEVA of the Canna race, and corresponding precisely with the chafm.

Innumerable other instances of the absurdities of the modern HINDUS might be produced, but those I have mentioned and explained I think are sufficient. I shall therefore conclude the subject of the poetic æras with the following table, shewing the moon's age and month, with the day of the week on which the Satya, Treta, Dwapar, and Cali yugs of the poets respectively commenced; which will prove, beyond a probability of doubt, that they have no connection whatever with the astronomical yugs of the same name, belonging to the system of MEYA explained at the beginning of this essay; for in the latter all the Yugs, Manwantaras, &c. belonging to the system begin unvariably on the first day of *Byfakh*, the moment the sun enters Aries in the *Hindu* sphere.

<i>Poetic Æras.</i>	<i>Days of the Week.</i>	<i>Moon's Age and Month.</i>
<i>Satya yug</i>	<i>Sunday</i>	3d tithee of the moon of <i>Byfakh</i> .
<i>Treta do.</i>	<i>Monday</i>	9th do. of do. <i>Cartic</i> .
<i>Dwapar do.</i>	<i>Thursday</i>	28th do. of do. <i>Bhadro</i> .
<i>Cali do.</i>	<i>Tuesday</i>	15th do. of do. <i>Magh</i> .

Note. The lunar month takes its name from the solar month, in which the new moon happens to fall. 30 tithees make a lunation.

With respect to the day of the week mentioned in the preceding table some of the Hindu accounts differ. The moon's age and month are extracted from the Brohmo puran, which agrees with the Hindu calendar, wherein the commencement of each yug is also recorded.

The following table of the dates of the ten avatars or incarnation of the deity, which took place in the above-mentioned yugs, is extracted from an augum or tontor called "*Guhjateeguhja*" supposed to have been written by SEEB or SEEVA, a Hindu deity.

TABLE OF THE AVATARS.

	<i>Avatars.</i>	<i>Week Day.</i>	<i>Moon's Age and Month.</i>	<i>Nakshatra.</i>
1	MOTCHYO	Monday	1 titthee <i>Chitro</i>	<i>Revati</i>
2	KURMO	Wednesday	2 <i>Joist'ho</i>	<i>Rohini</i>
3	BORAH	Sunday	7 <i>Magho</i>	<i>Ashwini</i>
4	NREESINGHO	Saturday	14 <i>Bysakho</i>	<i>Swati</i>
5	BAMONO	Friday	12 <i>Bhadro</i>	<i>Sravana</i>
6	POROSURAMO	Saturday	3 <i>Bysakho</i>	<i>Rohini</i>
7	RAMO	Monday	9 <i>Chitro</i>	<i>Punaryobasee</i>
8	KREESNO	Wednesday	23 <i>Bhadro</i>	<i>Rohini</i>
9	BOODHO	Sunday	10 <i>Asharo</i>	<i>Bysakha</i>
10	KOLKEE	Saturday	2 <i>Agrabain</i>	<i>Purvasara</i>

The 1st, 2d, 3d, and 4th Avatars are supposed to have happened during the period of the Satya yug; the 5th, 6th and 7th in the Treta yug; the 8th and 9th in the Dwapar yug; and the 10th or last in the Cali yug of the Poets, long since past.

Having then finished what I had to say respecting the poetic æras, and the absurdities introduced into the history and chronology of the Hindus, by confounding them with the astronomic system of MEYA, I shall now proceed to a third system, wherein the Manwantaras appear to have been but of short duration, and to depend on the revolutions of either JUPITER or SATURN. This system, like that of the poetic æras, has been always confounded with that of MEYA's, and consequently the cause of much confusion in the records of ancient times: To distinguish it from MEYA's I shall call it the *Puranic System*, and, by way of introduction, give the following table of the dates, &c. of the fourteen puranic Manwantaras, as contained in a Hindu book entitled the *Uttara Chanda*, from which Captain FRANCIS WILFORD was so obliging as to favour me with an extract.

TABLE OF THE PURANIC MANWANTARAS.

<i>Manwantaras.</i>	<i>Day of the Week.</i>	<i>Moon's Age and Month.</i>	<i>Nakshatra.</i>
1	Began on <i>Sunday.</i>	9th titthee of <i>Ashwin.</i>	<i>Sravana.</i>
2	— <i>Thursday.</i>	12 — <i>Cartic.</i>	<i>Utto Bhadrapada.</i>
3	— <i>Monday.</i>	3 — <i>Chitr.</i>	<i>Critica.</i>
4	— <i>Friday.</i>	3 — <i>Babar.</i>	<i>Hosta.</i>

Manwantaras.

<i>Manwantaras.</i>	<i>Day of the Week.</i>	<i>Moon's Age and Month.</i>		<i>Nakshatra.</i>
5	Tuesday.	30	Phalgun.	Solobbisa.
6	Saturday.	11	Pous.	Rhoini.
7	Friday.	10	Asar.	Swati.
8	Tuesday.	7	Magh.	*Onurada.
9	Sunday.	23	Srabon.	Rhoini.
10	Friday.	15	Asar.	Uttora Sara.
11	Monday.	15	Cartic.	Critica.
12	Thursday.	15	Phalgun.	Uttora-Pholguni.
13	Wednesday.	15	Chitr.	Chitra.
14	Wednesday.	15	Yoishtb.	Jeysta.

The order in which the above Manwantaras followed each other is not now known, but I have given them in the order in which they were written, in the memorial *stoke* or verse. However, as the first Manwantara commenced just when fifty years of BRA'HMA's life (that is, one half of the grand cycle of this system) were expired, it is easy to perceive that the 13th on the list must have been the first Manwantara; and I suspect that the 10th was the second, the 11th the third, the 12th the fourth, and the 14th the fifth Manwantaras, all of which appear to have been computed according to mean motions only, the other nine having the appearance of being computed according to the true place of the planet, on which the regulation of the periods depended.

In this system, which appears to have been in use before the time of MEYA for yugs, viz. a Satya, Treta, Dwapar, and Cali yug formed a Maha yug; seventy-one Maha yugs with a Sandhi, equal to a Satya yug, formed a Manwantara; and fourteen of such Manwantaras with a Sandhi, equal to a Satya yug, or 1000 Maha yugs, formed a Calpa or a day of BRA'HMA, and his night was of the same length; 360 of such days and nights form one of his years: and 100 of such years the period of his life or the grand Puranic cycle, in which all the planets with the nodes and apsides of their respective orbits were supposed to return to a line of conjunction in the beginning of Aries, the point they set out from at the commencement of the cycle.

From the apparent shortness of the Puranic Manwantaras (which probably did not exceed 3 or 400 years at most), and consequently of the Calpa, the cycle or term of BRA'HMA's life above mentioned appears to have been absolutely ne-

* Onurada appears incorrect as the moon of Magh must be 20 or 21 days old before it enters Onurada Nakshatra.

cessary in this system to render it applicable to the purpose of astronomy. But in the system of MEYA *now in use* that cycle is now totally unnecessary, nor does it in fact belong to it, as the Calpa alone in the latter contains all the lesser cycles of the revolutions of the planets, nodes, &c. within the period of its durations.

MEYA, the supposed author of Surya Sidhanta, lived in the Satya yug of the 28th Maha yug, of the 7th Manwantara of the fifty-first year of Bráhma's life, and probably finding the Puranic system either inconvenient, or not sufficiently correct, he invented the present one on a much larger scale, extending the duration of a Manwantara to 308448000 years, and simplified the system by making the yugs, &c. to depend on solar motion alone; by which means, all the periods in his system begin invariably on the first day of Bysakh, the moment the sun enters Aries in the Hindu sphere, which circumstance alone, must form a most striking difference between it, and the Puranic system.

In the Surya Sidhanta, MEYA has stated the obliquity of the ecliptic in his time at 24° , from whence Mr. S. DAVIS, a gentleman to whom the public is under very considerable obligations, for his valuable paper on the astronomical computations of the Hindus, published in the Asiatick Researches, computed that, supposing the obliquity of the ecliptic to have been accurately observed by the ancient Hindus as twenty-four degrees, and that its decrease had been from that time half a second a year, the age or date of the Surya Sidhanta (in 1789) would be 3840 years; therefore MEYA must have lived about the year 1956 of the creation.

The Hindu books place POROSU RAM one of the incarnate divinities in the 8th Manwantara of the Puranic system, and so they do VYASA, and OSOTHAMO, the son of DRON mentioned in the Mahabharat; and since the time of VYASA the remaining six Manwantaras have expired, as will appear from the following table of all the Patriarchs or Munos, &c. from the time of SWYOM-BHOBO or ADAM, who lived in the first Manwantara, down to the end of the fourteenth, which I have extracted from the Sreebhagobot, and from which some rational idea may be formed respecting the duration of the Puranic Manwantara, now generally confounded with the periods of the same name belonging to MEYA's system, in which we are now no further advanced than to the seventh Manwantara, and which was the same when he wrote long before the time of VYASA.

TABLE

TABLE of the PATRIARCHS or MUNNOOS, and others, during the fourteen Puranic
Manwantaras.

1st MANWANTARA.

SWOYOMBHOBO, or ADAM. <i>Munoo</i>	ROOCHEE, the husband of AKOOTEE
SOTOROOPA, his wife	KORDOM, ditto of DEBOOTEE
PREEYOBROTO, his son	DOKSOPROJAPOOTEE, ditto of PRO-
UTTANPADO, his second son	SOOTEE
AKOOTEE SWOYOMBHOOS, 1st daugh-	TOOREETO
ter	MOREECHEE
DEBOOTE, ditto, 2d ditto	MEESRO
PROSOOTEE, ditto, 3d ditto	YOGO.

2d MANWANTARA.

SWAROCHEESO. <i>Munoo</i>	TOOREETO
RAJA DYUMOT, his son	URJOSTOMBHO
RAJA SUSENO, ditto	ROCHONO, and others.
RAJA ROCHEESMOT, ditto	

3d MANWANTARA.

UTOMO. <i>Munoo</i>	BEDOSUTO
POBONO, his son	BHODRO
SRINJOYO, ditto	PROMODO
JOGOTRO, ditto	SOTYOJEET, and many others.
SOTYO	

4th MANWANTARA.

TAMOSO. <i>Munoo</i>	BEERSO
BREESOKHYATEE, his son	BEDHREETOYO
NOROHKETU, ditto	JOTEERDMA
SOTYOKHORoyo	TREESECKHOISWORO, & many others.

5th MANWANTARA.

RIBOTO. <i>Munoo</i>	HERONYOROMA
BOTEE, his son	BEDOSEERA
BEENDHO, ditto	URDHOBHOO
BHOOTOROYO	BEEBHOO, and many others.

6th MANWANTARA.

CHAKSOOSO. <i>Munoo</i>	APYO
PURRU, his son	HORYOSMOT
PURRUSO, ditto	DWEEROKO
SUDYUMNO, ditto	MONTRODRUMO, and many others.
PRODYUMNO, ditto	

7th MANWANTARA.

VAVIOBWATA, or NOAH. <i>Munoo</i>	RUDRO
ICSHWAKU, his 1st son	BISWEDEBO
NREEGO, 2nd ditto	MORUDGONO
DREESTO, 3d ditto	OSNIKUMAR
SORYATI, 4th ditto	RIBHOB
NORISYANTO, 5th ditto	KOSYAPO
PREESODHRO, 6th ditto	OTRI
NOBHOGO, 7th ditto	BOSISTO
KOBEE, 8th ditto	BISWAMITRO
DEESTO, 9th ditto	GOUTOMO
BARUNO, 10th ditto	JOMODOGNEE
ADITYO	BHORODWAJO
BOSU	PURONDORO, and many others.

8th MANWANTARA.

SABORNI. <i>Munoo</i>	POROSU RAM
NEERMOKO, his son	DIPLIMAN
BEEROJOSKA, ditto	OSOTTHAMO, son of DRON
SUTOPA	KREEPO
BEEROJA	REESYOSRINGO
OMREETOPROBHO	VYASA or BYASA
GABOLO	

9th MANWANTATA.

DOKSOSABORNI. <i>Munoo</i>	GHORBO
BOOTOKETU, his son	PARO
DIPTIKETU, ditto	DYUTIMOT
DREESTOKETU, ditto	STRUTHO, and many others.
MORICHI	

10th MAN-

10th MANWANTARA.

BROMOSABORNEE. <i>Munoo</i>	SUKREETO
BHURISIN, his son	SOTYO
SURASONO	Joyo
BIRUDHO	MURTI
HOBISMAN	SOMBHOO, and many others.

11th MANWANTARA.

DHOMORSABORNEE. <i>Munoo</i>	NEERBANO
SOTYO DHORMO, his son	ROOCHEE
BIHONGGONO	ORUNO
KAMOGOMO	BIDRETTO, and many others.

12th MANWANTARA.

RUDROSABORNEE. <i>Munoo</i>	TOPOMURTI
DEBOBAN, his son	TOPOSEE
UPODEBO, ditto	OGNEEDROKO
DEBOSREESTO, ditto	GONDHODHAMA, and many others.
HORITO	

13th MANWANTARA.

DEBOSABORNEE. <i>Munoo</i>	SUTRAMO
CHITROSENO, his son	NEERMOKO
BICHITRO, ditto	DIBOSPOTEE, and many others.
SUKORMÆ	

14th MANWANTARA.

EENDROSABORNI. <i>Munoo</i>	OGNEE
URUNGGO, his son	BAHOO
BHURU, ditto	SOOCHEE
BODHNO, ditto	SUDHO
POBETROO	MAGODHO, and many others.
CHAKSOOSO	

NOTE. Several names in the foregoing table had the title of Devtas, Reelhees, &c. annexed to them, probably by way of distinction or pre-eminence.

UTOMO, TOMOSO, and RIBOTO, the third, fourth, and fifth Munoo, were the grandsons of SWOYOMBHOBO, or ADAM; DOKSO SABORNEE, the ninth Munoo, was the son of BARUNO or VARUNO, the tenth son of VAIVOSWATA: therefore it is easy to perceive that the Puranic Manwantara, which was considered

sidered in ancient times as the duration of the life of a Munoo or Patriarch could not be very long, and ought not to be confounded with the Manwantaras of the present system of MEYA, consisting of 308448000 years each.

A CHRONOLOGICAL TABLE

Of the solar and lunar line of princes, who are said to have reigned in the Cities of Ayodhya or Audh (now Oud), and Pralishthana or Vitora, otherwise Hastinapoor (now Delhi) respectively, from about the beginning of the Treta yug of the Poets, or 1002nd year of the astronomic Cali yug, down to the time the solar line of princes became extinct: when the country is supposed to have been conquered by some foreign power; probably Alexander.

Poetic Æra.	Solar Line.	Year of the World.	Lunar Line.	Astr. Æra. Cali Yug.
179	Icswachu	1907	Budha	1002
	Vicucshi		Pururavas	
	Cucusta		Ayush	
	Anenas		Nahusha	
	Prithu	5	Yayati	5
	Vishwagandhi		Puru	
	Chandra		Janamejaya	
	Yuvanaswa		_____	
	Srava		_____	
	Vrihadhaswa	10	_____	10
	Dhundhumara		_____	
	Dridhaswa		_____	
	Heryaswa		_____	
	Nicumbha		_____	
	Crisaswa	15	_____	15
	Senajit		_____	
	Yuvanaswa		_____	
	Mandhatri		_____	
	Purucutsa		Prachinwat	
	Trafadasyu	20	Pravira	20
	Anaranya		Menasyu	
	Heryaswa		Charupada	
	Praruna		Sudyu	
	Trivindhana		Bahugaya	
	Satyavrata	25	Sanyati	25
	Trifancu		Ahanyati	

Treta Yug, or Silver Age.

Harif-

REMARKS ON ANCIENT HINDU ÆRAS AND DATES. 1033

<i>Poetic Æra.</i>	<i>Solar Line.</i>	<i>Year of the World.</i>	<i>Lunar Line.</i>	<i>Astr. Æra. Cali Yug.</i>
<i>Treta Yug, or Silver Age.</i>	Harischandra		Raudraswa	
	Rhoita		Riteyush	
	Harita		Rautinava	
	Champa 30		Sumati 30	
	Sudeva		Aiti	
	Vijaya		Dushmanta	
	Bharuca		Bharata	
	Vrica		Vitatha	
	Bahuca 35		Manyu 35	
	Sagara		Vrihatshetra	
	Asmanjas		Haslin	
	Anumat		Ajamedha	
	Bhaghiratha		Ricsha	
	Sruta 40		Samwarana 40	
	Nabha		Curu	
	Sindhadvipa		Jahnu	
	Ayutayush		Suratha	
	Ritaperna		Viduratha	
	Saudasa 45		Sarvabhauma 45	
	Asmaka		Jayasinha	
	Mulaca		Radhica	
	Dasaratha		Ayutayush	
	Aidabidi		Acrodhana	
	Vishwafaha 50		Devatithi 50	
	Chatawanga		Rusha	
	Derghabahu		Dillipa	
	Ragu		Pratipa	
	Aja		Santanu	
	Dasaratha 55		Vachytravirya 55	
	Rama		Pandu	
1097	Vrihadbala	2825	Yudhishtira	1920
1107	Vrihadrana	2835	Parishit	1930
	*Urucrya		*Janamajaya	
	*Vatsavridha 60		*Satanica 60	
	*Pratoyoma		*Sahasrinaca	
	*Bhanu		*Afwamedhaja	
	*Devaca		*Asmaerishna	
	*Sahadeva		*Nemichakra	
	*Vira 65		*Upta 65	
1296	*Vridhaswa		*Chitrarata	2119
				Cusha

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<i>Poetic Æra.</i>	<i>Solar Line.</i>	<i>Year of the World.</i>	<i>Lunar Line.</i>	<i>Astr. Æra. Cali Yug.</i>
<i>Dwapar Yuga, or Brazen Age.</i>	I Cushta	3025	*Suchiratha	2120
	Attithi		*Dhritimat	
	Nishadha		*Sushinā	
	Nabas	70	*Sunitha	70
	Pundarica		*Nrichaeshuh	
	Cshemadhanwas		*Suchinala	
	Devanica		*Pariplava	
	Ahshniagu		*Sunagar	
	Paripatra	75	*Medhavin	75
	Ranachala		*Nripanjava	
	Vajranabha		*Derva	
	Arca		*Trini	
	Sugana		*Vrihadratha	
	Vidhriti	80	*Sudhasa	80
	Hiranyanabha		*Satanica	
	Pushya		*Durmadana	
	Druvasandhi		*Rahinara	
	Suderfana		*Dandapani	
	Agniverna	85	*Nimi	85
	Sighira		*Cshimaca	
	Maru		_____	
	Prasufruta		_____	
	Sandhi		_____	
	Amerfana	90	_____	90
	Mahafwat		_____	
	Vishwabhabha		_____	
	Prasenhajit		_____	
	Tachaca		_____	
	*Bannumat	95	_____	95
	*Practicaswa		_____	
	*Supratika		_____	
	*Marudeva		_____	
	*Sunaschatra		_____	
	*Pushcara	100	_____	100
	*Antaricsha		_____	
	*Sutapas		_____	
	*Amitrajit		_____	
	*Vrihadraja		_____	
	*Barhi	105	_____	105
	*Critanjaya		_____	

*Ranan-

Poetic Æra.	Solar Line.	Year of the World.	Lunar Line.	Astr. Æra. Cali Yug.
<i>Dwapar Yuga, or Brahm. Age</i>	*Rananjaya		_____	
	*Sloeyā		_____	
	*Sudhoda	110	_____	110
	*Langalada		_____	
	*Praśenajit		_____	
	*Cśudraca.		_____	
	*Sumitra		_____	
	_____	115	_____	115
	_____		_____	
864	_____	117	_____	117
		3888		2983

In the preceding table I have placed Yudhiṣṭhir in the year 2825 of the world, corresponding to the 1097th of the Treta yug of the Poets, and to the 1920th of the astronomic Cali yug: that this is about the period in which Yudhiṣṭhir reigned I have not myself the smallest doubt, not only because he must have been contemporary with Parāśara the father of Vyāsa, but also on account of the exact coincidence of that period with the chasm of the chronology of the kings of Maghada, which appears sufficiently evident to have been occasioned by the removal of the dynasty of Sahadeva, who was contemporary with Yudhiṣṭhir, from that period of history.

From the probabilities of the duration of life deduced from observations on bills of mortality, it appears, that the mean duration of human life, taking one man with another, does not exceed thirty-two or thirty-three years. Admitting, however, the mean duration of life to be thirty-three years, of this we cannot allow more than a half, or seventeen years at the utmost, to each reign, in a long succession of princes. Therefore, as Iśhwacu, the son of Noah, began his reign near the beginning of the Treta yug, or in the year 179 of that period, if we divide the remaining years 1117 in the Treta yug by 17, we shall have about sixty-six reigns from Iśhwacu's time down to the end of the Treta yug; and this number of reigns is confirmed by the place of Yudhiṣṭhir in the table, being the fifty-seventh reign, and at the same time about 200 years before the end of the Treta yug; so that, in all probability, it would require at least nine or ten reigns more, from his time down to the end of that period. After the same manner,

manner, the number of computed reigns for the whole of the Dwapar yug or 864 years, would be fifty-one: which, with the former number, make altogether 117 computed reigns; and of this number we find no more than 114 in the solar line of princes, and still considerably less in the lunar line.

In consequence of the ancient historians adopting the astronomic æra of the Cali yug, at the close of Paricshit's reign, as already noticed, Yudhishtir and Paricshit's in the lunar line, and with Vrihadbala and Vrihadrana, their contemporaries in the solar line were removed (with others) by the modern commentators from the close of the Treta yug down to the close of the Dwapar yug of the Poets; therefore Rama was supposed to have been the last prince of the solar line who reigned in Oud at the close of the Treta yug: and as they had placed the immediate successors of Paricshit at the beginning of the Cali yug; so, in like manner, the immediate successors of Vrihadrana may be supposed to have been placed at the beginning of the Cali yug also: hence the mode of correction required becomes obvious.

I have therefore restored Vrihadbala and Vrihadrana to their proper places in the Treta yug, as contemporaries with Yudhishtir and Paricshit; and the remaining names down to the end of that period marked with a *, were their successors as placed in the Cali yug.

The other names marked with a *, are the remaining princes mentioned in Sir William Jones's chronology as reigning in the Cali yug; all of whom, however, if they reigned at all, must have reigned before the end of the Dwapar yug of the Poets; and their being mentioned by ancient historians as reigning in the Cali yug, does not at all imply that they reigned after the Dwapar yug, but only in the astronomical Cali yug, which commenced the 906th year of the Satya yug of the Poets, and has been unfortunately confounded (by the modern Hindu commentators) with their Cali yug; with which however it has no relation except in name: or to speak more correctly, they have confounded the fictitious ages of the Poets with the real astronomic periods.

With respect to the chasm in the lunar line of princes after Jananujaya, the names that are missing must either have been lost, or else, which is more probable, mentioned by the ancient historians, as reigning in the Cali yug of the astronomical æra; and as Jananujaya is the first prince mentioned as reigning in the Cali yug, in the lunar line, it is very probable he may be the same person
recorded

recorded as reigning in the Treta yug ; and if that should be the case, the eleven names that follow next to him, most likely will be those that should fill the chafms.

At what particular period of time, the solar line of princes became extinct, it is not easy to ascertain ; by the table, it would appear, that it must have been fifty years before the year 3888 of the world ; but as I allowed seventeen years to each reign, which is rather too much in a long succession of eldest sons, it is probable it must have ended about 100 years at least, earlier than given by the table ; which will place the end of the last prince's reign, about the year 3788 of the world.

Alexander the Great paid his visit to India about the year 3888 of the world, or end of the Dwapar yug ; but whether he was the cause of the solar line of princes becoming about that time extinct, or whether Prasenajit (the last prince but two mentioned in the table, and whose name might be pronounced or corrupted into Porasnajit, Porusnajit, or even Porus itself, leaving out the termination najit) was the prince named Porus, whom Alexander conquered and took prisoner, I will leave to others to decide.

A CHRONOLOGICAL TABLE

Of the kings of Magadha or Behar, from the reign of PRADYOTA, in the year 1095 of the world, down to that of CHANDRABIJA in the year 3554, containing a period of 1649 years.

<i>Anno Mundi.</i>		<i>Calî Yug.</i>	<i>Anno Mundi.</i>		<i>Calî Yug.</i>
1905	Pradyota	1000	2404	Nanda	1499
	Palaca		2504	Chandragupta	1599
	Vifachayupa			Varisara	
	Rajaca			Afocaverdhana	
	Nandivirdana			Suyasas	
2044	Sifunga	1139		Defaratha	
	Cacaverna			Sandgatha	
	Cshemadherman			Salisuca	
	Cshetrajirya			Somafarman	
	Vidifara			Satadhanwas	
	Ajatafatra			Vriadratha	
	Darbaca		2641	Pushpamitha	1736
	Ajaya			Agnamitra	
	Nandeverdhana			Sujyeshtha	
	Mahanandi			Vafumitra	

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<i>Anno Mundi.</i>		<i>ali Yug.</i>	<i>Anno Mundi.</i>		<i>Cali Yug.</i>
	Abhadraça			*Sumati	
	Pulinda			*Subala	
	Ghoſha			*Sunita	
	Vajramitra			*Saytajit	
	Bhagavata		3098	Balin	2193
2753	Devabuti	1848		Crifhna	
	Vafudeva			Srifantacarna	
	Bhumitra			Paurnamafa	
	Narayana			Lambodara	
	Sufarman			Vivilaca	
2825	*Sahadeva	1920		Meghafwata	
	*Marjari			Vatamana	
	*Srutaſrava			Talaca	
	*Ayutayuth			Sivaſwati	
	*Niramitra			Puriſhabheru	
	*Sunacſhatra			Sumandana	
	*Vriſhetſena			Chacoraca	
	*Carmajit			Bataca	
	*Srutanjaya			Gomalin	
	*Vipra			Purimat	
	*Suchi			Medaſiras	
	*Cſhema			Seraſcanda	
	*Suvrata			Yajnyaſri	
	*Dhermaſutra		3554	Vijaya	2649
	*Srama			Chandrabiya	
	*Dridhaſena				

The names with a * ſet before them, are thoſe whom I mentioned in the foregoing remarks, to have been erroneouſly placed by the modern Hindus before Pradyota; for Sahadeva, the firſt of the dynaſty, was contemporary with Yudhiſthir, who reigned about the year 2825 of the world. I have therefore reſtored them again to their proper places in hiſtory, and by that means corrected the two abſurdities pointed out by the late Sir William Jones, in the Hindu chronology of the kings of Magadha or Behar.

Calcutta, 2nd October, 1796.

XXII.

ON THE RELIGIOUS CEREMONIES OF THE HINDUS, AND OF
THE BRAHMENS ESPECIALLY.*By H. T. COLEBROOKE, Esq.*

ESSAY I.

THE civil Law of the Hindus containing frequent allusions to their religious rites, I was led, among other pursuits connected with a late undertaking, to peruse several treatises on this subject, and translate from the Sanscrit some entire tracts and parts of others. From these sources of information upon a subject on which the Hindus are by no means communicative, I intend to lay before the Society, in this and subsequent essays, an abridged explanation of the ceremonies, and verbal translations of the prayers used at rites, which a Hindu is bound constantly to perform. In other branches of this enquiry, the Society may expect valuable communications from our colleague Mr. W. C. BLAQUIRE, who is engaged in similar researches. That part of the subject to which I have confined my enquiries will be also found to contain curious matter, which I shall now set forth without comment, reserving for a subsequent essay the observations which are suggested by a review of these religious practices.

A Bráhmāna rising from sleep is enjoined under the penalty of losing the benefit of all rites performed by him, to rub his teeth with a proper withe, or a twig of the racemiferous fig tree, pronouncing to himself this prayer, “Attend, lord of the forest; SOMA, king of herbs and plants, has approached thee: mayest thou and he cleanse my mouth with glory and good auspices, that I may eat abundant food.” The following prayer is also used upon this occasion, “Lord of the forest! grant me life, strength, glory, splendour, offspring, cattle, abundant wealth, virtue, knowledge, and intelligence.” But if a proper withe cannot be found, or on certain days when the use of it is forbidden (that is, on the day of the conjunction, and on the first, sixth, and ninth days of each lunar fortnight), he must rinse his mouth twelve times with water.

Having

Having carefully thrown away the twig, which has been used, in a place free from impurities, he should proceed to bathe, standing in a river or in other water. The duty of bathing in the morning and at noon, if the man be a householder, and in the evening also, if he belong to an order of devotion, is inculcated by pronouncing the strict observance of it in no less efficacious, than a rigid penance, in expiating sins, especially the early bath in the months of Magha, Phalgima, and Cartica: and the bath being particularly enjoined as a salutary ablution, he is permitted to bathe in his own house, but without prayers, if the weather, or his own infirmities, prevent his going forth; or he may abridge the ceremonies and use fewer prayers, if a religious duty or urgent business require his early attendance. The regular bath consists of ablutions followed by worship and by the inaudable recitation of the Gáyatri with the names of the worlds. First sipping water, and sprinkling some before him, the priest recites the three subjoined prayers, while he performs an ablution by throwing water eight times on his head, or towards the sky, and concludes it by casting water on the ground to destroy the Demons, who wage war with the Gods. “ 1st. O waters! since ye afford delight, grant us present happiness, and the rapturous sight of the supreme God. 2d. Like tender Mothers “ make us here partakers of your most auspicious essence. 3d. We became contented with your essence, with which ye satisfy the universe. Waters! grant it “ unto us.” For, as otherwise expounded, the third text may signify, Eagerly do “ we approach your essence, which supports the universal abode. Waters! grant “ it unto us.” In the Agni purána the ablution is otherwise directed: “ At twilight, let a man attentively recite the prayers addressed to water, and perform an “ ablution by throwing water on the crown of his head, on the earth, towards the “ sky; again towards the sky, on the earth, on the crown of his head, on the “ earth, again on the crown of his head; and lastly, on the earth.” Immediately after this ablution he should sip water without swallowing it, silently praying in these words, “ Lord of sacrifice! thy heart is in the midst of the waters of the “ ocean; may salutary herbs and waters pervade thee. With sacrificial hymns and “ humble salutation we invite thy presence: may this ablution be efficacious.” Or he may sip water while he utters inaudably the mysterious names of the seven worlds. Thrice plunging into water he must each time repeat the expiatory text which recites the creation; and having thus completed his ablution, he puts on his mantle after washing it, and sits down to worship the rising sun.

This

This ceremony is begun by his tying the lock of hair on the crown of his head, while he recites the Gáyatri, holding much cusa grafs in his left, and three blades of the same grafs in his right hand; or wearing a ring of grafs on the third finger of the same hand. Thrice sipping water with the same text preceded by the mysterious names of worlds, and each time rubbing his hands as if washing them; and finally touching with his wet hand his feet, head, breast, eyes, ears, nose, and navel, or his breast, navel, and both shoulders, only (according to another rule) he should again sip water three times pronouncing to himself the expiatory text which recites the creation. If he happen to sneeze, or spit, he must not immediately sip water, but first touch his right ear in compliance with the maxim, “after sneezing, spitting, blowing his nose, sleeping, putting on apparel, or dropping tears, a man should not immediately sip water, but first touch his right ear.” “Fire,” says PARASARA, “water,” the védas, “the sun, moon, and air, all reside in the right ears of Bráhmanas. Ganga is in their right ears, sacrificial fire in their nostrils; at the moment when both are touched, impurity vanishes.” This, by the by, will explain the practice of suspending the end of the sacerdotal string over the right ear, to purify that string from the defilement which follows an evacuation of urine. The sipping of water is a requisite introduction of all rites; without it, says the Samba purána, all acts of religion are vain. Having therefore sipped water as above mentioned, and passed his hand filled with water briskly round his neck, while he recites this prayer: “May the Waters preserve me!” The priest closes his eyes, and meditates in silence, figuring to himself that BRA’HMA with fair faces, “and a red complexion, resides in his navel; VISHNU with four arms and a black complexion, in his heart; and SIVA with five faces and a white complexion, in his forehead.” The priest afterwards meditates the holiest of texts during three suppressions of breath. Closing the left nostril with the two longest fingers of his right hand, he draws his breath through the right nostril, and then closing that nostril likewise with his thumb, holds his breath while he meditates the text: he then raises both fingers off the left nostril, and emits the breath he had suppressed. While he holds his breath he must on this occasion repeat to himself the Gáyatri with the mysterious names of the worlds, the triliteral monosyllable, and the sacred text of BRA’HME. A suppression of breath so explained by the ancient legislator; YA’JNYAWALCYA consequently implies the following meditation, “Om! earth! sky! heaven! middle region! place of births! mansion of the blessed! abode of truth!”

“ We

“ We meditate on the adorable light of the resplendent Generator which governs our intellects : which is water, lustre, favour, immortal faculty of thought, BRA’HME, earth, sky, and heaven.” According to the commentary, of which a copious extract shall be subjoined, the text thus recited signifies, “ That effulgent power which governs our intellects is the primitive element of water, the lustre of gems and other glittering substances, the favour of trees and herbs, the thinking soul of living beings ; it is the creator, preserver, and destroyer, the sun and every other deity and all which moves, or which is fixed in the three worlds, named, earth, sky, and heaven. The supreme BRA’HME, so manifested, illumines the seven worlds ; may he unite my soul to his own radiance (that is to his own soul, which resides effulgent in the seventh world, or mansion of truth).” On another occasion the concluding prayer, which is the Gáyatri of BRA’HME, is omitted, and the names of the three lower worlds only are premised : thus recited, the Gáyatri properly so called, bears the following import : “ On that effulgent power, which is BRA’HME himself, and is called the light of the radiant sun, do I meditate ; governed by the mysterious light which resides within me, for the purpose of thought ; that very light is the earth, the subtil ether, and all which exists within the created sphere ; it is the threefold world, containing all which is fixed or moveable ; it exists internally in my heart, externally in the orb of the sun ; being one and the same with that effulgent power. I myself am an irradiated manifestation of the supreme BRA’HME.” With such reflections, says the commentator, should the text be inaudibly recited.

These expositions are justified by a very ample commentary in which numerous authorities are cited ; and to which the commentator has added many passages from ancient lawyers and from mythological poems, showing the efficacy of these prayers in expiating sin : as the foregoing explanations of the text are founded chiefly on the gloss of an ancient philosopher and legislator. Yájnyawalcya, the following extract will consist of little more than a verbal translation of his metrical gloss :

“ The parent of all beings produced all states of existence, for he generates and preserves all creatures ; therefore is he called the Generator. Because he shines and sports, because he loves and irradiates, therefore is he called resplendent or divine, and is praised by all deities. We meditate on the light which, existing in our minds, continually governs our intellects in the pursuits of virtue, wealth, love, and beatitude. Because the being, who shines with seven
“ rays,

“ rays, assuming the forms of time and of fire, matures productions, is resplendent, illumines all, and finally destroys the universe, therefore, he who naturally shines with seven rays, is called Light, or the effulgent power. The first syllable denotes, that he illumines worlds; the second consonant implies, that he colours all creatures; the last syllable signifies, that he moves without ceasing. From his cherishing all, he is called the irradiating Preserver.”

Although it appears, from the terms of the text, (“ Light of the Generator or Sun,”) that the sun and the light spoken of are distant, yet, in meditating this sublime text they are undistinguished; that light is the sun and the sun is light; they are identical. “ The same effulgent and irradiating power which animates living beings, as their soul exists in the sky, as the male being residing in the midst of the sun.” There is consequently no distinction; but that effulgence, which exists in the heart governing the intellects of animals, must alone be meditated as one and the same, however, with the luminous power residing in the orb of the sun.

“ That which is in the sun and thus called light, or effulgent power, is adorable and must be worshipped by them who dread successive births and deaths, and who eagerly desire beatitude. The being who may be seen in the solar orb, must be contemplated by the understanding, to obtain exemption from successive births and deaths and various pains.”

The prayer is preceded by the names of the seven worlds, as epithets of it, to denote its efficacy; signifying, “ that this light pervades and illumines the seven worlds, which, situated one above the other, are the seven mansions of all beings: they are called the seven abodes, self-existent, in a former period, renovated in this. These seven mysterious words are celebrated as the names of the seven worlds. The place where all beings, whether fixed or moveable, exist is called Earth, which is the first world. That in which beings exist a second time, but without sensation, again to become sensible at the close of the period appointed for the duration of the present universe, is the world of re-existence. The abode of the good, where cold, heat, and light, are perpetually produced, is named Heaven. The intermediate region, between the upper and lower worlds, is denominated the Middle World. The heaven where animals, destroyed in a general conflagration at the close of the appointed period, are born again, is thence called the World of Births. That in which Sanaca and other sons of Bráhma, justified by austere devotion, reside, exempt from all dominion, is thence named the Mansion

of

of the Blessed. Truth, the seventh world, and the abode of Bráhme, is placed on the summit above other worlds ; it is attained by true knowledge, by the regular discharge of duties, and by veracity : once attained, it is never lost. Truth is, indeed, the seventh world, therefore, called the Sublime Abode."

The names of the worlds are preceded by the trilateral monosyllable, to obviate the evil consequence announced by Menu, " A Bráhmaná, beginning and ending a lecture of the véda, (or the recital of any holy strain,) must always pronounce to himself the syllable óm ; for unless the syllable óm precede, his learning will slip away from him ; and, unless it follow, nothing will be long retained ; or that syllable is prefixed to the several names of worlds, denoting, that the seven worlds are manifestations of the power signified by that syllable. As the leaf of the paláśá," says Yájnyawalcya, " is supported by a single pedicle, so is this universe upheld by the syllable óm, a symbol of the supreme Bráhme." All rites ordained in the véda, oblations to fire, and solemn sacrifices, pass away, but that which passeth not away," says Menu, " is declared to be the syllable óm, then called acshara, since it is a symbol of God, the Lord of created beings."

" The concluding prayer is subjoined to teach the various manifestations of that light, which is the Sun himself. It is Bráhme, the supreme soul. The sun," says Yájnyawalcya, " is Bráhme ; this is a certain truth revealed in the sacred upanishats, and in various fáchás of the védas. So the Bhawishya purána, speaking of the sun. Because there is none greater than he, nor has been, nor will be, therefore he is celebrated as the supreme soul in all the védas."

That greatest of lights, which exists in the sun, exists also as the principle of life in the hearts of all beings. It shines externally in the sky, internally in the heart ; it is found in fire and in flame. This principle of life, which is acknowledged by the virtuous, as existing in the heart and in the sky, shines externally in the etherial region, manifested in the form of the sun. It is also made apparent in the lustre of gems, stones, and metals, and in the taste of trees, plants, and herbs ; that is the irradiating being, who is a form of Bráhme, is manifested in all moving beings, (gods, demons, men, serpents, beasts, birds, insects, and the rest,) by their locomotion ; and in some fixed substances, such as stones, gems, and metals, by their lustre ; in others, such as trees, plants, and herbs, by their favour. Every thing, which moves, or which is fixed, is pervaded by that light, which,

which, in all moving things, exists as the supreme soul, and as the immortal thinking faculty of beings, which have the power of motion. Thus, the venerable commentator says, "In the midst of the sun stands the moon, in the midst of the moon is fire, in the midst of light is truth, in the midst of truth is the unperishable being." And again, "God is the unperishable being, residing in the sacred abode; the thinking soul is light alone; it shines with unborrowed splendour." This thinking soul, called the immortal "principle," is a manifestation of that irradiating power, who is the supreme soul.

This universe, consisting of three worlds, was produced from water. "He first, with a thought, created the waters, and placed in them a productive seed." (Menu, chap. i. v. 8.) Water, which is the element whence the three worlds proceeded, is that light, which is also the efficient cause of creation, duration, and destination, manifested with these powers, in the form of Bráhma, Viśhnu, and Rudra; to denote this, "earth, sky, and heaven," are subjoined as epithets of light. These terms bear allusion also to the three qualities of truth, passion, and darkness, corresponding with the three manifestations of power, as creator, preserver, and destroyer; hence it is also intimated, that the irradiating being is manifested as Bráhma, Viśhnu, and Rudra, who are respectively endued with the qualities of truth, passion, and darkness. The meaning is, that this irradiating being, who is the supreme Bráhme, manifested in three forms or powers, is the efficient cause of the creation of the universe, of its duration and destruction. So in the Bhawishya purána, Crishna says, "the sun is the god of perception, the eye of the universe, the cause of day; there is none greater than he among the immortal powers. From him this universe proceeded, and in him it will reach annihilation; he is time measured by instants, &c." Thus the universe, consisting of three worlds containing all which is fixed or moveable, is the irradiating being; and he is the creator of that universe, the preserver and destroyer of it. Consequently nothing can exist, which is not that irradiating power.

These extracts from two very copious commentaries will sufficiently explain the texts, which are meditated while the breath is held as above mentioned. Immediately after these suppressions of breath, the priest should sip water reciting the following prayer, "May the sun sacrifice the regent of the firmament and other deities who preside over sacrifice, defend me from the sin arising from the perfect performance of a religious ceremony. Whatever sin I have committed by night, in thought, word, or deed, be that cancelled by day. Whatever sin

“ be in me, may that be far removed. I offer this water to the sun, whose light
 “ irradiates my heart, who sprung from the immortal essence. Be this oblation
 “ efficacious.” He should next make three ablutions with the prayers, “ Waters!
 since ye afford delight, &c.” at the same time throwing water eight times on his
 head, or towards the sky, and once on the ground as before; and again make
 similar ablutions with the following prayer: “ As a tired man leaves drops of sweat
 “ at the foot of a tree; as he who bathes is cleansed from all foulness; as an ob-
 “ lation is sanctified by holy grass; so may this water purify me from sin.” And
 another ablution with the expiatory text, which rehearses the creation. He should
 next fill the palm of his hand with water, and presenting it to his nose, inhale
 the fluid by one nostril, and, retaining it for a while, exhale it through the other,
 and throw away the water towards the north-east quarter. This is considered as
 an internal ablution, which washes away sins. He concludes by sipping water
 with the following prayer, “ Water! thou dost penetrate all beings; thou dost
 “ reach the deep recesses of the mountains; thou art the mouth of the universe;
 “ thou art sacrifice: thou art the mystick word vasha; thou art light, taste, and
 “ the immortal fluid.”

After these ceremonies, he proceeds to worship the sun, standing on one foot,
 and resting the other against his ankle or heel, looking towards the east, and
 holding his hands open before him in a hollow form. In this posture he pro-
 nounces to himself the following prayers: 1st, “ The rays of light announce
 “ the splendid fiery sun, beautifully rising to illumine the universe.” 2nd, “ He
 “ rises, wonderful, the eye of the sun, of water, and of fire, collective power of
 “ gods; he fills heaven, earth, and sky, with his luminous net; he is the soul
 “ of all which is fixed or locomotive.” 3d, “ That eye, supremely beneficial,
 “ rises pure from the east; may we see him a hundred years; may we live a
 “ hundred years; may we hear a hundred years.” 4th, “ May we, preserved
 “ by the divine power, contemplating heaven above the region of darkness, ap-
 “ proach the deity, most splendid of luminaries.” The following prayer may
 be also subjoined, “ Thou art self-existent, thou art the most excellent ray;
 “ thou givest effulgence: grant it unto me.” This is explained as an allusion to
 the seven rays of the sun; four of which are supposed to point towards the four
 quarters, one upwards, one downwards, and the seventh, which is central, is
 the most excellent of all: and is here addressed, in a prayer, which is explained
 as signifying, “ May the supreme ruler, who generates all things, whose lumi-

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nous ray is self-existent, who is the sublime cause of light, from whom worlds receive illumination, be favourable to us." After presenting an oblation to the sun, in the mode to be forthwith explained, the Gáyatri must be next invoked, in these words: "Thou art light; thou art seed; thou art immortal life; thou art effulgent: beloved by the gods, defamed by none, thou art the holiest sacrifice." And it should be afterwards recited measure by measure; then the two first measures as one hemistich, and the third measure as the other; and, lastly, the three measures without interruption. The same text is then invoked in these words: "Divine text, who dost grant our best wishes, whose name is trisyllable, whose import is the power of the Supreme Being; come thou mother of the védas, who didst spring from Bráhme, be constant here." The Gáyatri is then pronounced inaudibly with the trilateral monosyllable, and the names of the three lower worlds a hundred or a thousand times, or as often as may be practicable, counting the repetitions on a rosary of gems set in gold, or of wild grains. For this purpose, the seeds of the putrajiva, vulgarly named pitonhia, are declared preferable. The following prayers from the Vishnu purána, conclude these repetitions *: "Salutation to the sun; to that luminary, O Bráhme, who is "the light of the pervader, the true generator of the universe, the cause "of efficacious rites." 2d, "I bow to the great cause of day (whose emblem "is a full blown flower of the yava tree); the mighty luminary sprung from. "Casyapa, the foe of darkness, the destroyer of every sin:" or the priest walks a turn through the south, rehearsing a short text, "I follow the course "of the sun;" which is thus explained, "As the sun, in his course, moves "round the world by the way of the south, so do I, following that luminary, obtain the benefit arising from a journey round the earth, by the way of the "south."

* "I omit the very tedious-detail respecting sins expiated by a set number of repetitions; but in one instance, as an atonement for unwarily eating or drinking what is forbidden, it is directed, that eight hundred repetitions of the Gáyatri should be preceded by three suppressions of breath, touching water during the recital of the following text: 'The bull roars; he has four horns; three feet, two heads, seven hands, and is bound by a threefold ligature: he is the mighty resplendent being, and pervades mortal men.' The bull is justice personified. His four horns are the Brahma or superintending priest, the Udgatri or chanter of the Samadeva, the Hoti or reader of the Rigveda, who performs the essential part of a religious ceremony, and Adhwarin, who sits in the sacred close and chants the Yajurveda. His three feet are the three vedas. Oblations and sacrifice are his two heads, roaring stupendously. His seven hands are the Hotri, Mastravaruma, Bramanach handasi, Gravaftata, Adchhavac, Nishtri, and Potri, names by which officiating priests are designed at certain solemn rites. The threefold ligature by which he is bound, is worshipped in the morning, at noon, and in the evening.

The oblation above mentioned, and which is called Arg'há, consists of tila, flowers, barley, water, and red sanders wood, in a clean copper vessel made in the shape of a boat; this the priest places on his head, and thus presents it with the following text, "He who travels the appointed path (namely the sun) is present in that pure orb of fire, and in the ethereal region, he is the sacrificer at religious rites, and he sits in the sacred clove, never remaining a single day in the same spot, yet present in every house, in the heart of every human being, in the most holy mansion, in the subtle ether, produced in water, in earth, in the abode of truth, and in the stony mountains; he is that, which is both minute and vast." This text is explained as signifying, that the sun is a manifestation of the supreme being, present every where, produced every where, pervading every place and thing. The oblation is concluded by worshipping the sun with the subjoined text, his rays, the efficient causes of knowledge, irradiating worlds, appear like sacrificial fires."

Preparatory to any act of religion, ablutions must be again performed in the form prescribed for the mid-day bath; the practice of bathing at noon is likewise enjoined as requisite to cleanliness, conducive to health, and efficacious in removing spiritual as well as corporeal defilements: it must nevertheless be omitted by one who is afflicted with disease; and a healthy person is forbidden to bathe immediately after a meal, and without laying aside his jewels and other ornaments. If there be no impediment, such as those now mentioned or formerly noticed, in speaking of early ablutions he may bathe with water drawn from a well, from a fountain, or from a basin of a cataract; but he should prefer water which lays above ground, choosing a stream rather than stagnant water, a river in preference to a small brook, a holy stream before a vulgar river, and, above all, the water of the Ganges. In treating of the bath, authors distinguish various ablutions, properly and improperly so called, such as rubbing the body with ashes, which is named a bath sacred to fire, plunging into water, a bath sacred to the regent of this element: ablutions accompanied by the prayers, "O waters! since ye afford delight, &c." which constitute the holy bath: standing in dust raised by the treading of cows, a bath denominated from wind or air; standing in the rain during daylight, a bath named from the sky or atmosphere. The ablution or bath properly so called are performed with the following ceremonies.

After bathing and cleaning his person, and pronouncing as a vow, "I will
now

now perform ablutions," he who bathes should invoke the holy river; "O Ganga, Yamuna, Saraswati, Satadru, Marudvîha, and Jiyiciya! hear my prayers; for my sake be included in this small quantity of water with the holy streams of Parushti Asieni, and Vitafta." He should also utter the radical prayer consisting of the words "Salutation to Nârâyana." Upon this occasion a prayer extracted from the Padma purâna is often used with this salutation called the radical text; and the ceremony is at once concluded by taking up the earth and pronouncing the subjoined prayers; "Earth, supporter of all things, trampled by horses, traversed by cars, trodden by Vishnu! whatever sin has been committed by me, do thou, who art upheld by the hundred armed Crîshna, incarnate in the shape of a boar, ascend my limbs, and remove every such sin."

The text extracted from the Padma purâna follows: "thou didst spring from the foot of Vishnu daughter of Vishnu, honoured by him; therefore preserve us from sin, protecting us from the day of our birth, even unto death. The regent of air has named thirty-five millions of holy places in the sky, on earth, and in the space between; they are all comprised in the daughter Jahnu. Thou art called she, who promotes growth, among the gods: thou art named the lotos; able, wife of Prîthu, bird, body of the universe, wife of Siva, nectar, female cherisher of science, cheerful, favouring worlds; merciful, daughter of Jahnu, consoler, giver of consolation. Ganga, who flows through the three worlds, will be near unto him, who pronounces these pure titles during his ab-lution."

When the ceremony is preferred in its full detail, the regular prayer is a text of the vâda. "Thrice did Vishnu step, and at three strides traversed the universe: happily was his foot placed on this dusty earth. Be this oblation efficacious!" By this prayer is meant, "May the earth, thus taken up, purify me." Cow dung is next employed with a prayer importing, "Since I take up cow dung, invoking thereon the goddesses of abundance, may I obtain prosperity!" the literal sense is this: "I here invoke that goddess of abundance, who is the vehicle of smell, who is irresistible, ever white, present in this cow dung, mistress of all beings, greatest of elements, ruling all the senses." Water is afterwards held up in the hollow of both hands joined, while the prayer denominated from the regent of water is pronounced: "Because Varuna, king of waters, spread

spread a road for the sun, therefore do I follow that route. Oh! he made that road in untrodden space, to receive the footsteps of the sun. It is he who restrains the heart-rending wicked." The sense is, "Varuna, king of waters, who curbs the wicked, made an expanded road in the other real region to receive the rays of the sun; I therefore follow that route." Next, previous to swimming, a short prayer must be meditated: "Salutation to the regent of water! past are the fetters of Varuna." This is explained as importing that the displeasure of Varuna, at a man's traversing the waters which are his fetters, is averted by salutation: swimming is therefore preceded by this address. The priest should next recite the invocation of holy rivers, and thrice throw water on his head from the hollow of both hands joined, repeating three several texts: 1st, "Waters! remove this sin, whatever it be, which is in me; whether I have done any thing malicious towards others, or cursed them in my heart, or spoken falsehoods." 2d, "Waters! mothers of worlds! purify us; cleanse us by the sprinkled fluid, ye who purify through libations; for, ye, divine waters, do remove every sin." 3d, "As a tired man leaves drops of sweat at the foot of a tree, &c." Again, swimming and making a circuit through the south, this prayer should be recited: "May divine waters be auspicious to us for accumulation, for gain, and for refreshing draughts: may they listen to us, that we may be associate with good auspices." Next reciting the following prayer the priest should thrice plunge into water: "O consummation of solemn rites! who dost purify when performed by the most grievous offenders; thou dost invite the basest criminals to purification; thou dost expiate the most heinous crimes. I atone for sins towards the gods by gratifying them with oblations and sacrifice; I expiate sins towards mortals by employing mortal men to officiate at sacraments. Therefore defend me from the pernicious sin of offending the gods."

Water must be next sipped with the prayer, "Lord of sacrifice, thy heart is in the midst of the waters of the ocean, &c." and the invocation of holy rivers is again recited. The priest must thrice throw up water with the three prayers, "O waters, since ye afford delight, &c." and again, with the three subjoined prayers: 1st, "May the Lord of thought purify me with an uncut blade of cuta grass, and with the rays of the sun. Lord of purity, may I obtain that coveted innocence, which is the wish of thee, who is satisfied with this oblation of water and of me, who am purified by this holy grass." 2d, "May the Lord
" of

“ of speech purify me, &c.” 3d, “ May the resplendent sun purify me, &c.” Thrice plunging into water, the priest should as often repeat the grand expiatory text, of which Yajnyawalcya says, “ it comprises the principles of things, and the elements, the existence of the (chaotick) mass, the production and destruction of worlds.” This serves as a key to explain the meaning of the text, which being considered as the essence of the védas, is most mysterious. The author before me, seems to undertake the explanation of it with great awe, and intimates, that he has no other key to its meaning, nor the aid of earlier commentaries. “ The Supreme Being alone existed; afterwards there was universal darkness: next the watery ocean was produced, by the diffusion of virtue; then did the Creator, lord of the universe, rise out of the ocean, and successively frame the sun and moon, which govern day and night, whence proceeds the revolution of years; and after them he framed heaven and earth, the space between, and the celestial region.” The terms with which the text begins, both signify truth, but here explained as denoting the supreme Bráhme, on the authority of a text quoted from the véda; “ Bráhme is truth, the one immutable being. He is truth and everlasting knowledge.” ‘ During the period of general-annihilation, says the commentator, the Supreme Being alone existed. Afterwards, during that period, night was produced; in other words, there was universal darkness.’ “ This universe existed only in darkness, imperceptible, undefinable, undiscoverable by reason, and undiscovered by revelation as if it were wholly immersed in sleep.” (Menu, ch. I. v. 5.) Next, when the creation began, the ocean was produced by an unseen power universally diffused; that is, the element of water was first reproduced, as the means of the creation: “ He first, with a thought, created the waters, &c.” (Menu, ch. I. v. 8.) Then did the Creator, when lord of the universe, rise out of the waters. ‘ The lord of the universe, annihilated by the general destruction, revived with his own creation of the three worlds.’ Heaven is here explained the expanse of the sky above the region of the stars. The celestial region is the middle world and heavens above. The author before me, has added numerous quotations on the sublimity and efficacy of this text, which Menu compares with the sacrifice of a horse, in respect of its power to obliterate sins.

After bathing, while he repeats this prayer, the priest should again plunge into water, thrice repeating the text, “ As a tired man leaves drops of sweat at the foot of a tree, &c.” Afterwards, to atone for greater offences, he should meditate
the

the Gáyatri, &c. during three suppressions of breath. He must also recite it measure by measure, hemistich by hemistich; and, lastly, the entire text without any pause. As an expiation of the sin of eating with men of very low tribes, or of coveting or accepting what should not be received, a man should plunge into water, at the same time reciting a prayer which will be quoted on another occasion. One who has drunk spirituous liquors should traverse water up to his throat, and drink as much expressed juice of the moon plant, as he can take up in the hollow of both hands, while he meditates the triliteral monosyllable, and then plunge into water, reciting the subjoined prayer, “O Rudra! hunt not our offspring
“and descendants; abridge not the period of our lives; destroy not our cows; kill
“not our horses; slay not our proud and irritable folks; because, holding oblations,
“we always pray to thee.”

Having finished his ablutions, and coming out of the water, putting on his apparel after cleansing it, having washed his hands and feet, and having sipped water, the priest sits down to worship in the same mode, which was directed after the early bath; substituting, however, the following prayer, in lieu of that which begins with the words, “May the sun, sacrifice, &c.” “May the waters purify the
“earth, that she, being cleansed, may purify me: may the lord of holy knowledge
“purify her, that she being cleansed by holiness, may purify me: may the waters
“free me from every defilement, whatever be my uncleanness, whether I have
“eaten prohibited food, done forbidden acts, or accepted the gifts, of dishonest
“men.” Another difference between worship at noon and in the morning, consists in standing before the sun with uplifted arms, instead of joining the hands in a hollow form. In all other respects the form of adoration is similar.

Having concluded this ceremony, and walked in a round beginning through the south, and saluted the sun, the priest may proceed to study a portion of the véda. Turning his face towards the east, with his right hand towards the south, and his left hand towards the north, sitting down with the cusá grass before him, holding two sacred blades of grass on the tips of his left fingers, and placing his right hand thereon, with the palm turned upwards, and having thus meditated the Gáyatri, the priest should recite the proper text on commencing the lecture, and read as much of the védas as may be practicable for him, continuing the practice daily until he have read the whole of the védas; and then recommencing the course.

Prayer on beginning a lecture of the Rigveda: “I praise the blazing fire, which
“is

“ is first placed at religious rites, which effects the ceremony, for the benefit of the
 “ votary, which performs the essential part of the rite, which is the most liberal
 “ giver of gems.”

On beginning a lecture of the Yajurveda : “ I gather thee, O branch of the
 “ véda, for the sake of rain ; I pluck thee for the sake of strength. Calves! ye
 “ are like unto air; (that is, as wind supplies the world by means of rain, so do ye
 “ supply sacrifices by the milking of cows). May the luminous generator of
 “ worlds, make you attain success in the best of sacraments.”

On the beginning a lecture of the Samaveda : “ Regent of fire, who dost effect
 “ all religious ceremonies, approach to taste my offering; thou who art praised for
 “ the sake of oblations, sit down on this grass.”

The text which is repeated on commencing a lecture of the At'harva véda has
 been already quoted on another occasion : “ May divine waters be auspicious to
 “ us, &c.”

In this manner should a lecture of the védas, or of the védangas, of the sacred
 poems and mythological history of law, and other branches of sound literature, be
 conducted. The priest should next proceed to offer barley, tila and water to the
 manes. Turning his face towards the east, wearing the sacrificial cord on his left
 shoulder, he should sit down and spread cusa grass before him with the tips pointing
 towards the east. Taking grains of barley in his right hand, he should invoke
 the gods. “ O assembled gods ! hear my call, sit down on this grass ;” then
 throwing away some grains of barley, and putting one hand over the other, he
 should pray in these words : “ Gods ! who reside in the ethereal region, in the
 “ world near us, and in heaven above ; ye whose tongues are flame, and who save
 “ all them who duly perform the sacraments, hear my call, sit down on this grass,
 “ and be cheerful.” Spreading the cusa grass, the tips of which must point to-
 wards the east, and placing his left hand thereon, and his right hand above the left,
 he must offer grains of barley and water from the tips of his fingers, (which are
 parts dedicated to the gods), holding three straight blades of grass, so that the tips
 be towards his thumb, and repeating this prayer : “ May the gods be satisfied ;
 “ may the holy verses, the scriptures, the devout sages, the sacred poems, the
 “ teachers of them, and the celestial quiristers, be satisfied ; may other instructors,
 “ human beings, minutes of time, moments, instants measured by the twinkling of
 “ an eye, hours, days, fortnights, months, seasons, and years, with all their compo-

“ nent parts be satisfied herewith *.” Next wearing the sacrificial thread round his neck, and turning towards the north, he should offer tila, or grains of barley with water, from the middle of his hand (which is a part dedicated to human beings), holding in it cusa grass, the middle of which must rest on the palm of his hand: this oblation he presents on grass, the tips of which are pointed towards the north; and with it he pronounces these words: “ May Sanaca be satisfied; “ may Samandana, Sanatana, Capila, Afuri, Bodhu, and Parchasicha, be satisfied “ herewith.” Placing the thread, &c. on his right shoulder, and turning towards the south, he must offer tila and water from the root of his thumb (which is a part sacred to the progenitors of mankind), holding bent grass thereon; this oblation he should present upon a vessel of rhinoceros’ horn placed on grass, the tips of which are pointed towards the south; and with it he says, “ May fire, which re- “ ceives oblations, presented to our forefather, be satisfied herewith; may the moon, “ the judge of departed souls, the sun, the progenitors who are purified by fire, “ those who are named from their drinking the juice of the moon plant, and those “ who are denominated from sitting on holy grass, be satisfied herewith!” He must then make a similar oblation, saying, “ May Nárás’arya, Párás’arya, S’uca, “ Sácalya, Yaj’nyawalcyā, Játucarn’a, Cátyáyana, Apaṣṭamba, Baud’hyaṇa, Vácha- “ cut’í, Vacjavápi, Húhú, Lócácfhí, Maitráyan’í, and Aindrāyan’í, be satisfied here- “ with.” He afterwards offers three oblations of water mixed with tila, from the hollow of both hands joined, and this he repeats fourteen times with the different titles of Yama, which are considered as fourteen distinct forms of the same deity. “ Salutation to Yama, salutation to Dhermaraja, or the king of deities, to death, to “ Antaca or the destroyer, to Vaivaswata or the child of the sun, to time, to the “ slayer of all beings, to Audhumbara or Yama springing out of the racemiferous “ fig tree, to him who reduces all things to ashes, to the dark-blue deity, to him “ who resides in the supreme abode, to him whose belly is like that of a wolf, to “ the variegated being, to the wonderful inflictor of pains.” Taking up grains of tila, and throwing them away while he pronounces this address to fire: “ Ea- “ gerly we place and support thee; eagerly we give thee fuel; do thou fondly “ invite the progenitors, who love thee, to taste this pious oblation.” Let him invoke the progenitors of mankind in these words: “ May our progenitors, who

* The verb is repeated with each term, “ May the holy verses be satisfied; may the vedas be satisfied, &c.”

“ are worthy of drinking the juice of the moon plant, and they who are purified by fire, approach us through the paths which are travelled by gods ; and pleased with the food presented at the sacrament, may they ask for more, and preserve us from evil.” He should then offer a triple oblation of water with both hands, reciting the following text, and saying, “ I offer this tila and water to my father, such a one sprung from such a family.” He must offer similar oblations to his paternal grandfather, great-grandfather ; and another set of similar oblations to his maternal grandfather, and to the father and grandfather of that ancestor ; a similar oblation must be presented to his mother, and single oblations to his paternal grandmother and great-grandmother : three more oblations are presented, each to three persons, paternal uncle, brother, son, grandsons, daughter’s son, son-in-law, maternal uncles, sister’s son, father’s sister’s son, mother’s sister, and other relations. The text alluded to bears this meaning : “ Waters be the food of our progenitors ; satisfy my parents, ye who convey nourishment, which is the drink of immortality, the fluid of libations, the milky liquor, the confined and promised food of the manes.”

The ceremony may be concluded with three voluntary oblations ; the first presented like the oblations to deities, looking towards the east, and with the sacrificial cord placed on his left shoulder. The second like that offered to progenitors, looking towards the south, and with the string passed over his right shoulder. The prayers which accompany these offerings are subjoined : 1st. “ May the gods, demons, benevolent genii, huge serpents, heavenly quiriters, fierce giants, blood thirsty savages, unmelodious guardians of the celestial treasure, successful genii, spirits called Cushmana, trees, and all animals, which move in air or in water, which live on earth, and feed abroad, may all these quickly obtain contentment, through the water presented by me.” 2nd. “ To satisfy them who are detained in all the hells and places of torment, this water is presented by me.” 3d. “ May those, who are, and those who are not, of kin to me, and those who are allied to me in a former existence, and all who desire oblations of water from me, obtain perfect contentment.” The first text which is taken from the *Samaveda* differs a little from the *Yajurveda*. “ Gods, benevolent genii, huge serpents, nymphs, demons, wicked beings, snakes, birds of mighty wing, trees, giants ; and all who traverse the ethereal region, genii who cherish science, animals that live in water or traverse the atmosphere, creatures that have no abode, and all living animals which exist in fin or in the
“ practice

“ practice of virtue ; to satisfy them is this water presented by me.” Afterwards, the priest should wring his lower garment pronouncing this text : “ May those who have been born in my family, and have died, leaving no son nor kinsman, bearing the same name, be contented with this water which I present by wringing it from my vesture.” Then placing his sacrificial cord on his left shoulder, sipping water, and raising up his arms, let him contemplate the sun, reciting a prayer inserted above : “ He who travels the appointed path, &c.” The priest should afterwards present an oblation of water to the sun, pronouncing the text of the Vishnu purána which has been already cited, “ Salutation to the sun,” &c. He then concludes the whole ceremony by worshipping the sun with a prayer above quoted : “ Thou art self-existent,” &c. by making a circuit through the south while he pronounces, “ I follow the course of the sun ;” and by offering water from the hollow of his hand while he salutes the regents of space and other Deities. “ Salutation to space ; to the regents of space, to Bráhma, to the earth, to salutary herbs, to fire, to speech, to the lord of speech, to the pervader, and to the mighty Deity.”

C. E. CARRINGTON, Esq.

Secretary to the Asiatick Society.

SIR,

THE sacrifice of human and other victims, and the sacrificial rites celebrated by the Hindus, having being represented to me as a subject of curious investigation, which, from a comparison with the ceremonies used on similar occasions, by other ancient nations, might perhaps be interesting, as well to the Society, as to the learned in Europe, I procured the Calica Puran, in which I was given to understand, I should meet with full information on the subject. To effect this purpose, I translated the Rudhirádhyáyã or sanguinary chapter, which treats of human, as well as of other sacrifices, in which blood is shed. I hope also in my next communication, to lay before the Society, a full account of the Goddess Cali,

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Cali, to whom these sacrifices are made, and of the Bhairāvās, sons of Siva, to two of whom the chapter is addressed by Siva.

I am, &c. &c. &c.

W. C. BLAQUIERE.

Calcutta, August 15th, 1796.

XXIII.

THE RUDHIRA'DHYA'YĀ, OR SANGUINARY CHAPTER; TRANSLATED FROM THE CALICA PURAN.

By W. C. BLAQUIERE, Esq.

SALUTATION TO CALICA.

[*Śhivā addresses Betāl, Bhairāva, and Bhairāvā.*]

I WILL relate you, my sons, the ceremonies and rules to be observed in sacrifices, which being duly attended to are productive of the divine favour.

The forms laid down in the vaiṣṇāvi Tāntrā, are to be followed on all occasions, and may be observed by sacrificers to all Deities.

Birds, tortoises, allegators, fish, nine species of wild animals, buffaloes, bulls, he-goats, ichneumons, wild boars, rhinoceroses, antelopes, guanas, rein-deer, lions, tygers, men, and blood drawn from the offerer's own body, are looked upon as proper oblations to the Goddess Chandica, the Bhairāvās, &c.

It is through sacrifices that princes obtain bliss, heaven, and victory over their enemies.

The pleasure which the Goddess receives from an oblation of the blood of fish and tortoises is of one month's duration, and three from that of a crocodile. By the blood of the nine species of wild animals, the Goddess is satisfied nine months, and for that space of time continues propitious to the offerer's welfare. The blood of the wild bull and guana gives pleasure for one year, and that of the antelope and
wild

wild boar for twelve years. The Sārābhā's * blood satisfies the Goddesses for twenty-five years, and buffalo's and rhinoceros's blood for a hundred, and that of the tyger an equal number. That of the lion, rein-deer, and the human species produces pleasure, which lasts a thousand years. The flesh of these, severally, gives the Goddesses pleasure for the same duration of time as their blood. Now attend to the different fruits attending an offering of the flesh of a rhinoceros or antelope, as also of the fish called rohita.

The flesh of the antelope and rhinoceros pleases the Goddesses five hundred years, and the rohita fish and Bardhrinasa give my beloved (i. e. the Goddesses Cali) delight for three hundred years.

A spotless goat, who drinks only twice in twenty-four hours, whose limbs are slender, and who is the prime among a herd, is called a Bardhrinasa, and is reckoned as the best of Hāvyās, (i. e. offerings to the Deities), and Cāvyās, (i. e. offerings to deceased progenitors.)

The bird whose throat is blue and head red and legs black with white feathers, is called also Bardhrinasa, and is king of the birds, and the favourite of me and Viṣṇu.

By a human sacrifice attended by the forms laid down, Devi is pleased one thousand years, and by a sacrifice of three men, one hundred thousand years. By human flesh, Cāmāc'hya, Chāndicā, and Bhairāvā who assumes my shape, are pleased one thousand years. An oblation of blood which has been rendered pure, by holy texts, is equal to ambrosia; the head and flesh also afford much delight to the Goddesses Chāndicā. Let therefore the learned, when paying adoration to the Goddesses, offer blood and the head, and when performing the sacrifice to fire, make oblations of flesh.

Let the performer of the sacrifice be cautious never to offer bad flesh, as the head and blood are looked upon by themselves equal to ambrosia.

The gourd, sugar cane, spirituous liquors, and fermented liquors are looked upon as equivalent to other offerings, and please the Goddesses for the same duration of time as the sacrifice of a goat.

The performance of the sacrifice, with a Chāndra-hāśā, or cātri (two weapons of the ax kind) is reckoned the best mode, and with a hatchet or knife, or saw, or

* Sarabhas, an animal of a very fierce nature, said to have eight feet.

a fangeul, the second best, and the beheading with a h a Bhăllăc (an instrument of the spade kind), the inferior mode.

Exclusive of these weapons, no others of the spear or arrow kind ought ever to be used in performing a sacrifice, as the offering is not accepted by the Goddesses, and the giver of it dies. He who, with his hands, tears off the head of the consecrated animal, or bird, shall be considered equally guilty with him who has slain a Brâhmen, and shall undergo great sufferings.

Let not the learned use the ax, before they have invoked it by holy texts, which have been mentioned heretofore, and framed by the learned for the occasion: let those I now tell you, be joined to them and the ax invoked, and particularly so, where the sacrifice is to be made to the Goddesses Durgă, and Cămăc'hyă.

Let the sacrificer repeat the word Căli twice, then the words Devi Băjreswari, then Lawhă Dăndăyai, Namah! which words may be rendered Hail! Cali, Cali! Hail! Devi! goddesses of thunder, Hail iron-sceptered Goddesses! Let him then take the ax in his hand, and again invoke the same by the Călratriyă text as follows.

Let the sacrificer say Hrang Hring. Cali, Cali! O horrid toothed Goddess; eat, cut, destroy all the maglignant, cut with this ax; bind, bind; seize, seize; drink blood; spheng, spheng; secure, secure. Salutations to Cali. Thus ends the Călratriyă Măntra.

The Charga (the ax) being invoked by this text called the Călratriyă Măntră, Călrătri (the Goddesses of darkness) herself presides over the ax uplifted for the destruction of the sacrificer's enemies.

The sacrificers must make use of all the texts directed previous to the sacrifice, and also of the following, addressing himself to the victim.

Beasts were created by the self-existing, himself to be immolated at sacrifices: I therefore immolate thee, without incurring any sin in depriving thee of life.

Let the sacrificer then name the Deity to whom the sacrifice is made, and the purpose for which it is performed; and by the above text immolate the victim, whose face is to be towards the north, or else let the sacrificer turn his own face to the north, and the victim's to the east. Having immolated the victim, let him without fail mix salt, &c. as before mentioned with the blood.

The vessel in which the blood is to be presented, is to be according to the circumstances of the offerer, of gold, silver, copper, brass, or leaves sewed together, or of earth, or of tutenague, or of any of the species of wood used in sacrifices.

Let

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Let it not be presented in an iron vessel, nor in one made of the hide of an animal, or the bark of a tree ; nor in a pewter, tin, or leaden vessel. Let not the blood be represented in the holy vessel named *frub* and *fruch*, nor on the ground. Let it not be presented in the *Ghātā* (i. e. an earthen jar always used in other religious ceremonies.) Let it not be presented by pouring it on the ground, or into any of the vessels used at other times for offering food to the Deity. Let not the good man who wishes for prosperity, offer the blood in any of these vessels. Human blood must always be presented in a metallic or earthen vessel ; and never on any account in a vessel made of leaves, or similar substance.

The offering a horse, except at the *Aśwamedha* sacrifice, is wrong, as also offering an elephant, except at the *Gājā Medha* ; let therefore the ruler of men observe never to offer them except on those occasions. And on no account whatsoever let him offer them to the Goddess *Devi*, using the wild bull called *Chānrārā* as a substitute for the horse, when the occasion requires one.

Let not a *Brāhmen* ever offer a lion or a tyger, or his own blood, or spirituous liquors to the Goddess *Devi*. If a *Brāhmen* sacrifices either a lion, a tyger, or a man, he goes to hell, and passes but a short time in this world attended with misery and misfortune.

If a *Brāhmen* offers his own blood, his guilt is equal to that of the slayer of a *Brāhmen* ; and if he offers spirituous liquors, he is no longer a *Brāhmen*.

Let not a *Cshectree* offer an antelope ; if he does, he incurs the guilt of a *Brāhmen* slayer : where the sacrifice of lions, of tygers, or of the human species is required, let the three first classes act thus ; having formed the image of the lion, tyger, or human shape with butter, paste, or barley meal, let them sacrifice the same, as if a living victim, the *ax* being first invoked by the text *Nōmō*, &c.

Where the sacrifice of a number of animals is to take place it is sufficient to bring and present two or three to the Deity, which serves as a consecration of the whole. I have now related to you, O *Bhairāvā*, in general terms, the ceremonies and forms of sacrifices : attend now to the different texts to be used on the several different occasions.

When a buffalo is presented to *Devi*, *Bhaivaree*, or *Bhairāvi*, let the sacrificer use the following *Māntrā* in invoking the victim.

“ In the manner that thou destroyest horses, in the manner that thou carriest
“ *Chāndicā*, destroy my enemies, and bear prosperity to me, O buffalo.

“ O flee

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“ O steed of death, of exquisite and unperishable form, produce me long life and fame. Salutation to thee, O buffalo !”

Let him then address the Charga (ax), calling it Guhá Játă, i. e. the cavern born, and besprinkle it with water, saying, “ Thou art the instrument used in sacrifices to the gods and ancestors, O ax ! of equal might with the wild rhinoceros, cut asunder my evils. O cavern-born ! salutation to thee again and again.”

At the sacrifice of an antelope, the following Măntă is to be used :

“ O antelope ! representative of Bráhma, the emblem of his glory, thou who art even as the fond védas, and learned, grant me extensive wisdom and celebrity.”

At the sacrifice of a Sárăbhă, let the following Măntă be used. O *eight*-footed animal ! O sportful native of the Chăndră Bhăgă mountains ! thou eight-formed long-armed animal * ; thou who art called Bhairăvă : salutation to thee again and again ! assume the terrifick form, under which thou destroyest the wild boar, and in the same manner destroy my enemies.”

At the sacrifice of a lion : “ O Heri, who, in the shape of a lion bearest Chăndicá, bear my evils and avert my misfortunes. Thy shape, O lion ! was assumed by Heri, to punish the wicked part of the human race, and under that form, by truth, the tyrant Hirănyă Căşipu was destroyed.” I have now related to thee, O Bhairăvă, who art void of sin, the mode of paying adoration to the lion.

Now attend to the particulars relative to the offering of human blood.

Let a human victim be sacrificed at a place of holy worship, or at a cemetery where dead bodies are buried. Let the oblation be performed in the part of the cemetery called Heruca, which has been already described, or at a temple of Cămac'hă, or on a mountain. Now attend to the mode.

The cemetery represents me, and is called Bhairăvă, it has also a part called Tăntrăngă ; the cemetery must be divided into these two divisions, and a third called Heruca.

The human victim is to be immolated in the east division, which is sacred to Bhairăvă ; the head is to be presented in the south division, which is looked upon as the place of skulls sacred to Bhairăví, and the blood is to be presented in the west division, which is denominated Heruca.

* A mark of eminence.

Having immolated a human victim, with all the requisite ceremonies at a cemetery or holy place, let the sacrificer be cautious not to cast eyes upon the victim.

On other occasions also, let not the sacrificer cast eyes upon the victim immolated, but present the head with eyes averted.

The victim must be a person of good appearance, and be prepared by ablutions, and requisite ceremonies, such as eating consecrated food the day before, and by abstinence from flesh and venery; and must be adorned with chaplets of flowers and besmeared with sandal wood.

Then causing the victim to face the north, let the sacrificer worship the several deities, presiding over the different parts of the victim's body: let the worship be then paid to the victim himself by his name.

Let him worship Bráhma in the victim's Bráhma Rhandra, i. e. cave of Bráhma, cavity in the skull, under the spot where the *saturæ coronalis* and *sagittalis* meet*. Let him worship the earth in his nose, saying, *Medinyaih nāmāh*, and casting a flower; in his ears, *ácásā*, the subtil ether, saying, *ácásáyā nāmāh*; in his tongue, *sarvata muc'ha*, (i. e. Bráhma Agni, &c. the regents of speech, &c.) saying *sarvata muc'hāya nāmāh*; the different species of light in his eyes, and Viṣṇu in his mouth. Let him worship the moon on his forehead, and Indra on his right cheek, fire on his left cheek, death on his throat, at the tips of his hair the regent of the south-west quarter, and Varuna between the eye-brows; on the bridge of the nose let him pay adoration to wind, and on the shoulders to *Dhāneshwārā*, (i. e. god of riches), then worshipping the *sārpā rājā*, (i. e. king of serpents), on the stomach of the victim, let him pronounce the following *Māntrā*:

“ O best of men! O most auspicious! O thou who art an assemblage of all
 “ the deities, and most exquisite! bestow thy protection on me, save me, thy
 “ devoted, save my sons, my cattle, and kindred; preserve the state, the mi-
 “ nisters belonging to it, and all friends; and as death is unavoidable, part
 “ with (thy organs of) life, doing an act of benevolence. Bestow upon me, O
 “ most auspicious! the bliss which is obtained by the most austere devotion, by
 “ acts of charity and performance of religious ceremonies; and at the same time,
 “ O most excellent! attain supreme bliss thyself. May thy auspices, O most
 “ auspicious! keep me secure from *Rācshasas*, *Pisachos*, terrors, serpents, bad

* This is done by casting a flower there, saying, *Brahmaye namah*; salutation to Brahma.

“ princes,

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“princes, enemies, and other evils; and death being inevitable, charm Bhágavati in thy last moments by copious streams of blood spouting from the arteries of thy fleshy neck.”

Thus let the sacrificer worship the victim, adding whatever other texts are applicable to the occasion, and have been before mentioned.

When this has been done, O my children! the victim is even as myself, and the guardian deities of the ten quarters take place in him; then Bráhma and all the other deities assemble in the victim, and be he ever so great a sinner, he becomes pure from sin, and when pure, his blood changes to ambrosia, and he gains the love of Méhadévi, the Goddess of the Yog Nidrá, (i. e. the tranquil repose of the mind from an abstraction of ideas); who is the Goddess of the whole universe, the very universe itself. He does not return for a considerable length of time in the human form, but becomes a ruler of the Gāṇā Devātās, and is much respected by me myself. The victim who is impure from sin or ordure and urine, Cámáchyá will not even hear named.

By the repetitions of the texts, and forms laid down for the sacrifice of buffalos, and other animals, their bodies become pure and their blood acceptable to the Goddess Shívá.

On occasions of sacrifices to other deities also, both the deities and victims must be worshipped, previous to the immolation.

The blind, the crippled, the aged, the sick, the afflicted with ulcers, the hermaphrodite, the imperfectly formed, the scarred, the timid, the leprous, the dwarfish, and the perpetrator of méhá pataca (heinous offences, such as slaying a Bráhmen, drinking spirits, stealing gold, or defiling a spiritual teacher's bed), one under twelve years of age, one who is impure from the death of a kinsman, &c. one who is impure from the death of méhá guru, (father and mother), which impurity lasts one whole year: these severally are unfit subjects for immolation, even though rendered pure by sacred texts.

Let not the female, whether quadruped or bird, or a woman, be ever sacrificed; the sacrificer of either will indubitably fall into hell; where the victim of either the beasts or birds creation, are very numerous, the immolation of a female is excusable; but this rule does not hold good, as to the human species.

Let not a beast be offered under three months old, or a bird who is under three pacsha (forty-five days). Let not a beast or bird who is blind, deficient in a limb, or ill-formed, be offered to Dévi, nor one who is in any respect unfit, from the reasons

reasons which have been set forth, when speaking of the human race: let not animals and birds with mutilated tails, or ears, or broken teeth, or horns, be presented on any account.

Let not a Bráhmén or a Chandala be sacrificed; nor a prince; nor that which has been already presented to a Bráhmén, or a deity; nor the offspring of a prince, nor one who has conquered in battle; nor the offspring of a Bráhmén, or of a Cshettree; nor a childless brother, nor a father, nor a learned person, nor one who is unwilling, nor the maternal uncle of the sacrificer. Those not here named, and animals, and birds of unknown species, are unfit. If these named are not forthcoming, let their place be supplied by a male ass or camel. If other animals are forthcoming, the sacrifice of a tiger, camel, or ass, must be avoided.

Having first worshipped the victim, whether human, beast, or bird, as directed, let the sacrificer immolate him, uttering the Mántrā directed for the occasion, and address the deity with the text laid down before.

Let the head and blood of a human victim be presented on the right side of Devi, and the sacrificer address her standing in front. Let the head and blood of a goat be presented on the left, and the head and blood of a buffalo in front. Let the head and blood of birds be presented on the left, and the blood of a person's own body in front. Let the ambrosia proceeding from the heads of carnivorous animals and birds be presented on the left hand, as also the blood of all aquatick animals.

Let the antelope's head and blood, and that of the tortoise, rhinoceros, and hare, and crocodile, and fish, be presented in front.

Let a lion's head and blood, be presented on the right hand, and the rhinoceros's also; let not, on any account, the head or blood of a victim ever be presented behind the Deity, but on the right, left, and in front.

Let the consecrated lamp, be placed either on the right hand, or in front, but on no account, on the left. Let incense be burnt on the left, and in front, but not on the right hand. Let perfumes, flowers, and ornaments, be presented in front; with respect to the different parts of the circle, where to present the offerings, the mode already laid down may be observed. Let Mādirá (spirituous liquor) be presented behind other liquids on the left.

Where it is absolutely necessary to offer spirits, let the three first classes of men supply their place, by cocoanut juice in a brass vessel, or honey in a copper one. Even in a time of calamity, let not a man of the three first classes, offer spirituous liquor,

liquor, except that made from flowers, or stewed dishes. Let princes, ministers of state, counsellors, and venders of spirituous liquors, make human sacrifices, for the purpose of attaining prosperity and wealth.

If a human sacrifice is performed, without the consent of the prince, the performer incurs sin. In cases of imminent danger or war, sacrifices may be performed at pleasure, by princes themselves and their ministers, but by none else.

The day previous to a human sacrifice, let the victim be prepared by the text *Mánaṣṭāc*, and three *Devi Gandhā Suṭāhs*, and the texts *wádrāṅg*; and by touching his head with the ax, and besmearing the ax with sandal, &c. perfumes, and then taking some of the sandal, &c. from off the ax, and besmearing the victim's neck therewith.

Then let the text *Ambé A'mbicé*, &c. and the *Rowdrā* and *Bhairāvā* texts be used, and *Dévi* herself will guard the victim who, when thus purified, malady does not approach him, nor does his mind suffer any derangement from grief and similar causes, nor does the death or birth of a kinsman render him impure.

Now listen to the good and bad omens, to be drawn from the falling of the head, when severed from the body.

If the head falls towards the north-east, or south-west, the prince of the country and offerer of the sacrifice will both perish.

If the human head, when severed from the body, falls in the following quarters, the following omens are to be drawn.

If in the east, wealth; if in the south-west, power; if in the south, terror; if in the west, profit; if in the north-west, a son; if in the north, riches.

Listen now to the omens to be drawn from the falling of the head of a buffalo, when severed from the body.

If in the north, property; the north-east, loss; in the east, dominion; south-east, wealth; the south, victory over enemies; if in the south-west, fear; if in the west, attainment of kingdom, if the north-east, prosperity: this rule, O *Bhairāvā*! holds good for all animals, but not for aquatick or oviparous creatures.

If the heads of birds, or fishes, fall in the south, or south-east, quarter, it indicates fear, and if any of the other quarters, prosperity.

If a noise, proceeding from the chattering of the teeth of the victim's severed head, or snapping of the beak, is perceptible, it indicates alarm. If tears proceed from the eyes of a human victim's severed head it indicates destruction to the prince.

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If tears proceed from the severed head of a buffalo at the time of presenting it, it indicates that some foreign inimical prince will die. If tears proceed from the eyes of other animals, they indicate alarm, or loss of health.

If the severed head of a human victim smiles, it indicates increase of prosperity, and long life to the sacrificer, without doubt; and if it speak, whatever it says will come to pass.

If the sound Hoonh proceeds from the human victim's severed head, it indicates that the prince will die; if phlegm, that the sacrificer will die. If the head utters the name of a deity, it indicates wealth to the sacrificer within six months.

If at the time of presenting the blood, the victim discharge feces or urine, or turns about, it indicates certain death to the sacrificer; if the victim kicks with his left leg, it indicates evil, but a motion of his legs in any other mode indicates prosperity.

The sacrificer must take some blood between his thumb and third finger, and discharge it towards the south-west on the ground, as an offering to the deities, accompanied by the Mehă Cawfici Măntă.

Let the victim offered to Devi, if a buffalo, be five years old, and if human twenty-five.

Let the Cawfici* Măntă be uttered, and the sacrificer say Eshă băli Sevăhă, "Mysterious praise to this victim."

A prince may sacrifice his enemy, having first invoked the ax with holy texts, by substituting a buffalo or goat, calling the victim by the name of the enemy throughout the whole ceremony.

Having secured the victim with cords, and also with sacred texts, let him strike off the head, and present it to Devi, with all due care. Let him make these sacrifices in proportion to the increase or decrease of his enemies, lopping off the heads of victims for the purpose of bringing destruction on his foes, infusing, by holy texts, the soul of the enemy into the body of the victim, which will, when immolated, deprive the foe of life also.

Let him first say, "O Goddess of horrid form, O Chândică! eat, devour, such a one, my enemy, O consort of fire! Salutation to fire! This is the enemy who has done me mischief, now personated by an animal: destroy him,

* The Cawfici Mantra: "Hail Cawfici! three-eyed Goddess; of most terrifying appearance, around whose neck a string of human skulls is pendant, who art the destroyer of evil spirits, who art armed with an ax, the foot of a bed and a spear, Rhing Cawfici. Salutation to thee with this blood."

"O Mahamari!

“O Mahamari! Spheng! spheng! eat, devour.” Let him then place flowers upon the victim's head. The victim's blood must be presented with the Māntrā of two syllables.

If a sacrifice is performed in this manner on the Mehanawani (the ninth of the moon in the month of Aṣṭim), let the homa, (i. e. oblation to fire), be performed with the flesh of the victim.

Using the texts which are laid down in the Durga Tantra and purified fire, let the Homa be performed after the sacrifice, and it will procure the death of foes.

Let not any one present blood drawn from any part of the body below the navel, or from the back. Let not blood drawn from the lips, or chin, or from any limb, be presented. Blood drawn from any part of the body, between the neck and navel, may be presented, but violent incisions for the purpose of obtaining it, must not be made.

Blood drawn from the cheeks, forehead, between the eye brows, from the tips of the ears, the arms, the breasts, and all parts between the neck and navel, as also from the sides, may be presented.

Let not blood drawn from the ankles, or knees, or from parts of the body which branch out, be presented, nor blood which has not been drawn from the body for the express purpose of being offered.

The blood must be drawn for the express purpose of an oblation, and from a man pure in body and mind, and free from fear: it must be caught in the petal of a lotos, and presented. It may be presented in a gold, silver, brass, or iron vessel, with the due form, and texts recited.

The blood, if drawn by an incision made with a knife, ax, or fangcul, gives pleasure, in proportion to the size of the weapon.

The sacrificer may present one fourth of the quantity which a lotos petal will contain, but he must not give more on any account; nor cut his body more than is necessary. He who willingly offers the blood of his body and his own flesh, the size of a grain of linseed, maṣha, tila, or mudya, with zeal and fervency, obtains what he desires in the course of six months.

Now attend to the fruits obtained by offering the burning wick of a lamp placed upon the arms, ears, or breast, even for a single moment. He who applies the same obtains happiness and great possessions; and for three Cālpās is even as the body of Dévi herself; after which he becomes a ruler of the universe.

He who, for a whole night, stands before the Goddess Sīvā, holding the head
of

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of a sacrificed buffalo in his hands, with a burning lamp placed between the horns, obtains long life and supreme felicity in this world, and in the other resides in my mansion, holding the rank of a ruler in the Ganadevatas.

He who, for a single cshana, (a short space of time), holds the blood which proceeds from a victim's head in his hands, standing before the Goddesses in meditation, obtains all that he desires in this world, and supremacy in the Dévi Loe.

Let the learned when he presents his own blood, use the following text followed by the Mula Māntrā, or principal text used in the worship of the Goddesses Dévi, under the form which she is at that time addressed :

“ Hail! supreme delusion ! Hail ! Goddesses of the universe ! Hail ! thou who
“ fulfillest the desires of all. May I presume to offer thee, the blood of my body ;
“ and wilt thou deign to accept it, and be propitious towards me.”

Let the following text be used, when a person presents his own flesh :

“ Grant me, O Goddesses ! bliss, in proportion to the fervency with which I
“ present thee with my own flesh, invoking thee to be propitious to me. Salu-
“ tation to thee again and again, under the mysterious syllables hong hong.”

When the wick of a lamp is applied burning to the body the following text is to be used :

“ Hail ! Goddesses ! Salutation to thee, under the syllables, hōng hōng. To
“ thee I present this auspicious luminary, fed with the flesh of my body, enlight-
“ ening all around, and exposing to light also, the inward recesses of my soul.”

On the autumnal Meha Navami, or when the moon is in the lunar mansion Scanda or Bishácá, let a figure be made, either of barley meal or earth, representing the person with whom the sacrificer is at variance, and the head of the figure be struck off ; after the usual texts have been used, the following text is to be used in invoking an ax on the occasion :

“ Effuse, effuse blood ; be terrifick, be terrifick ; seize, destroy, for the love of
Ambicá, the head of this enemy.”

Having struck off the head, let him present it, using the texts laid down hereafter for the occasion, concluding with the word phat. Water must be sprinkled upon the meal, or earthen victim, which represents the sacrificer's enemy, using the text commencing with răcta drăbaih, (i. e. by streams of blood), and marks must be made on the forehead with red sanders : garlands of red flowers must be put round the neck of the image, and it must be dressed in red garments, and tied with red cords, and girt with a red girdle. Then placing the head towards the
north,

north, let it be struck off with an ax, and presented, using the Scānda text. This is to be used at presenting the head, if the sacrifice is performed on the night of the Scānda Nāc'hātra, or lunar mansion Scānda. The Visāc'hā Māntrā, is to be used on the night the Visāc'hā mansion. Let the sacrificer contemplate two attendants on the Goddess, as having fiery eyes, with yellow bodies, red faces, long ears, armed with tridents and axes in their two right hands, and holding human skulls and vases in their two left. Let them be considered as having three eyes and strings of human skulls, suspended round their necks, with long straggling frightful teeth.

In the month of Chaitra, on the day of the full moon, sacrifices of buffalos and goats give unto me of horrid form much pleasure; as do also honey and fish, "O my sons!"

Where a sacrifice is made to Chāndicā, the victim's head having been cut off, must be sprinkled with water, and afterwards presented with the texts laid down.

The sacrificer may draw an augury from the motions of the slain victim when near expiring, and for so doing he must first address the Goddess, considering the soul of the victim as taking its departure in a car, and his body as a holy spot, "O Goddess! make known unto me, whether the omens are favourable or not."

If the head of the slain victim, does not move some time after this, the sacrificer may look upon the circumstance as a good omen, and if the reverse, as a bad one.

He who performs sacrifices according to these rules, obtains his wishes to the utmost extent.

Thus are the rules and forms of sacrifice, laid down and communicated by me to you. I will now inform you what other oblations may be made.

Thus ends the Rudhirādhyāya.

XXIV.

AN ACCOUNT OF THE PEARL FISHERY IN THE GULPH OF
MANAR,*In March and April 1797.**By HENRY J. LE BECK, Esq.**Communicated by Doctor Roxburg.*

FROM the accounts of the former pearl fisheries at Ceylon, it will be found, that none have ever been so productive as this year's. It was generally supposed that the renter would be infallibly ruined, as the sum he paid for the present fishery was thought exorbitant when compared with what had been formerly given; but this conjecture in the event appeared ill founded, as it proved extremely profitable and lucrative.

The farmer this time was a Tamul merchant, who for the privilege of fishing with more than the usual number of donies or boats, paid between two and three hundred thousand Porto-novo pagodas, a sum nearly double the usual rent.

These boats he farmed out again to individuals in the best manner he could, but for want of a sufficient number of divers some of them could not be employed.

The fishing, which commonly began about the middle of February, if wind and weather allowed, was this year, for various reasons, delayed till the end of the month; yet so favourable was the weather, that the renter was able to take advantage of the permission granted by the agreement, to fish a little longer than the usual period of thirty days.

The fishery cannot well be continued after the setting in of the southern monsoon, which usually happens about the 15th of April, as, after that time, the boats would not be able to reach the pearl banks, and the water being then so troubled by heavy seas, diving would be impracticable; in addition to which, the sea-weed, a species of fucus, driven in by the southerly wind, and which spreads to a considerable distance from the shore, would be an impediment.

Many of the divers, being Roman Catholics, leave the fishery on Sundays to attend divine service in their church at Aripoo; but if either a Mahomedan or
Hindu

Hindu festival happens during the fishing days, or if it is interrupted by stormy weather, or any other accident, this lost time is made up by obliging the Catholics to work on Sundays.

The fear of sharks, as we shall see hereafter, is also another cause of interruption. These, amongst some others, are the reasons that, out of two months (from February till April), seldom more than thirty days can be employed in the fishery.

As this time would be insufficient to fish all the banks (each of which has its appropriate name, both in Dutch and Tamul), it is carried on for three or four successive years, and a new contract annually made till the whole banks have been fished, after which they are left to recover.

The length of time required for this purpose, or from one general fishing to another, has not yet been exactly determined; it was, therefore, a practice to depute some persons to visit the banks annually, and to give their opinion, whether a fishery might be undertaken with any degree of success*.

From various accounts which I have collected from good authority, and the experience of those who assisted at such examinations, I conjecture, that every seven years such a general fishery could be attempted with advantage, as this interval seems sufficient for the pearl shells to attain their growth: I am also confirmed in this opinion, by a report made by a Dutch governor at Jafnas of all the fisheries that have been undertaken at Ceylon since 1722; a translation of which is to be found in Wolfe's Travels into Ceylon. But the ruinous condition in which the divers leave the pearl banks at each fishery, by attending only to the profit of individuals, and not to that of the public, is one great cause, that it requires twice the above-mentioned space of time, and sometimes longer, for rendering the fishing productive. They do not pay the least attention, to spare the young and immature shells that contain no pearl; heaps of them are seen thrown out of the boats as useless, on the beach between Manâr † and Aripoo; if these had been suffered to remain in their native beds, they would, no doubt, have produced many fine pearls. It might, therefore, be adviseable, to oblige the boat people to throw them into the sea again, before the boats leave the bank. If this circumspection, in sparing the small pearl shells, to perpetuate the breed, was

* A gentleman, who assisted at one of the last visits, being an engineer, drew a chart of the banks, by which their situation and size are now better known than formerly.

† Manara, properly Manar, is a Tamul word, and signifies a sandy river, from the shallowness of the sea at that place.

always observed, succeeding fisheries might be expected sooner, and with still greater success: but the neglect of this simple precaution will, I fear, be attended with similar fatal consequences here, as have already happened to the pearl banks on the coast of Persia, South America, and Sweden, where the fisheries are by no means so profitable at present as they were formerly.

Another cause of the destruction of numbers of both old and young pearl shells, is the anchoring of so many boats on the banks, almost all of them used differently formed, clumsy, heavy, wooden anchors, large stones, &c. &c. If this evil cannot be entirely prevented, it might, at least, be greatly lessened, by obliging them all to use anchors of a particular sort, and less destructive.

This season the Seewel Bank only was fished, which lies above twenty miles to the westward of Aripoo, opposite to the fresh water rivers of Moosalee Modragam and Pomparipoo. It has been observed, that the pearls on the north-west part of this bank, which consists of rock, are of a clearer water than those found on the south-east, nearest the shore, growing on corals and sand.

Condatchey is situated in a bay, forming nearly a half-moon, and is a waste, sandy district, with some miserable huts built on it. The water is bad and brackish, and the soil produces only a few, widely scattered, stunted trees and bushes. Those persons who remain here during the fishery are obliged to get their water for drinking from Aripoo, a village with a small old fort, lying about four miles to the southward. Tigers, porcupines, wild hogs, pangolines, or the Ceylon armadillos, are, amongst other quadrupeds, here common. Of amphibia, there are tortoises, especially the *testudo geometrica*, and various kinds of snakes. A conchologist meets here with a large field for his enquiries. The presents which I made to the people employed in the fishery, to encourage them to collect all sorts of shells which the divers bring on shore, produced but little effect; as they were too much taken up in searching after the mother of pearl shells to pay attention to any other object. However, my endeavours were not entirely useless; I will specify here a few of the number I collected during my stay: different kinds of pectines *, *palium porphyreum*, *solen radiatus* †, *Venus castrensis*, Linn. ‡ *astrea hyotis* §, *ostr. Forskolii*, *ostr. Malleus* ||, *mytilus hirundo* Linn. ¶,

* Scallops.

† Radiated razor shell.

‡ Alpha cockle.

§ Double cocks-comb.

|| Hammer oyster; these were pretty large, but many broken, and some covered by a calcareous crust. It is very probable that, among those, there may be some precious white ones.

¶ Swallow muscle.

spondilus crocius, *pholas pufillus*, Linn. *, *mitra episcopalis*, Linn., *lepas striata* Pennanti (vide Zool. Brit.), *patella tricarinata*, Linn., *bullæ perfecta maculata* †, *harpa nobilis*, *porcellana falita*, Rumph. ‡, *strombus scorpio*, and other of inferior kinds. Amongst the zoophytes, many valuable species of *spongiæ*, *corallinæ*, *fatulariæ*, &c. a great variety of sea stars, and other marine productions, that cannot be preserved in spirits, but should be described on the spot. These, as well as the description of the different animals inhabiting the shells, are the more worthy of our attention, and deserve farther investigation, as we are yet very deficient in this branch of natural history.

During the fishing season, the desert, barren place, Condatchey, offers to our view a scene equally novel and astonishing. A heterogeneous mixture of thousands of people of different colours, countries, casts, and occupations, the number of tents and huts, erected on the sea shore, with their shops or bafars before each of them; and the many boats returning on shore in the afternoon, generally richly laden; all together form a spectacle entirely new to an European eye. Each owner runs to his respective boat as soon as it reaches the shore, in hopes of finding it fraught with immense treasure, which is often much greater in imagination than in the shell; and though he is disappointed one day, he relies with greater certainty on the next, looking forward to the fortune promised him by his stars, as he thinks it impossible for the astrological predictions of his Brâhmen to err.

To prevent riot and disorder, an officer with a party of Malays is stationed here. They occupy a large square, where they have a field-piece and a flag-staff for signals.

Here and there you meet with brokers, jewellers, and merchants of all descriptions; also, suttlers offering provisions and other articles to gratify the sensual appetite and luxury. But by far the greater number are occupied with the pearls. Some are basely employed in assorting them; for which purpose they make use of small brass plates perforated with holes of different sizes; others are weighing and offering them to the purchaser; while others are drilling or boring them; which they perform for a trifle.

The instrument, these people carry about with them for this purpose, is of a very simple construction, but requires much skill and exercise to use it; it is made

* The wood-piercer.

† Diving snail, (Grew, Mus.)

‡ Salt-coury. Kl.

in the following manner: the principal part consists of a piece of soft wood, of an obtuse, inverted, conical shape, about six inches high and four in diameter in its plain surface; this is supported by three wooden feet, each of which is more than a foot in length. Upon the upper flat part of this machine are holes, or pits, for the larger pearls, and the smaller ones are beat in with a wooden hammer. On the right side of this stool, half a cocoa-nut shell is fastened, which is filled with water. The drilling instruments are iron spindles, of various sizes, adapted to the different dimensions of the pearls, which are turned round in a wooden head by a bow. The pearls being placed on the flat surface of the inverted cone, as already mentioned, the operator sitting on a mat, presses on the wooden head of his instrument with the left hand, while, with his right, he moves the bow which turns round the moveable part of the drill; at the same, he moistens the pearl, occasionally dipping the little finger of the same hand into the water of the cocoa-nut shell, with a dexterity that can only be attained by constant practice.

Amongst the crowd are found vagabonds of every description, such as Pandarams, Andee, or Hindu monks, fakirs, beggars, and the like, who are impertinently troublesome. Two of these wretches particularly attracted the attention of the mob, though their superstitious penance must have disgusted a man of the least reflection: one had a gridiron, of one and a half foot long and the same in breadth, fastened round his neck, with which he always walked about, nor did he take it off either when eating or sleeping; the other had fastened round that member, which decency forbids me to mention, a brass ring, and fixed to it was a chain, of a fathom in length, trailing on the ground, the links of this chain were as thick as a man's finger, and the whole was exhibited in a most scandalous manner.

The pestilential smell occasioned by the numbers of putrifying pearl fishes, renders the atmosphere of Condatchey so insufferably offensive when the south-west wind blows, that it sensibly affects the olfactory nerves of any one unaccustomed to such cadaverous smells. This putrefaction generates immense numbers of worms, flies, muskitoes, and other vermin; all together forming a scene strongly displeasing to the senses.

Those who are not provided with a sufficient stock of money suffer great hardships, as not only all kinds of provisions are very dear, but even every drop of good water must be paid for. Those who drink the brackish water of this place are often attacked by sickness. It may easily be conceived what an effect

the

the extreme heat of the day, the cold of the night, the heavy dews, and the putrid smell, must have on weak constitutions. It is, therefore, no wonder that of those who fall sick many die, and many more return home with fevers, fluxes, or other equally fatal disorders.

The many disappointments, usually experienced by the lower classes of men in particular, make them often repent of their coming here. They are often ruined, as they risk all they are worth to purchase pearl shells; however, there are many instances of their making a fortune beyond all expectation. A particular circumstance of this kind fell within my own observation: a day labourer bought three oysters * for a copper fanam (about the value of two pence) and was so fortunate as to find one of the largest pearls which the fishery produced this season.

The donies appointed for the fishery are not all procured at Ceylon; many came from the coasts of Coromandel and Malabar, each of which has its distinguishing number. About ten o'clock at night a gun is fired as a signal, when they sail from Condatchey with an easterly or land wind, under the direction of a pilot. If the wind continues fair, they reach the bank before day, and begin diving at sun rise, which they continue till the west or sea breeze sets in, with which they return. The moment they appear in sight, the colours are hoisted at the flag staff, and in the afternoon they come to an anchor, so that the owners of the boats are thereby enabled to get their cargoes out before night, which may amount to 30,000 oysters, if the divers have been active and successful.

Each boat carries twenty-one men and five heavy diving stones for the use of ten divers, who are called in Tamul, kooly kârer, the rest of the crew consists of a tandel, or head boatman, and ten rowers, who assist in lifting up the divers and their shells.

The diving stone is a piece of coarse granite, a foot long, six inches thick, and of a pyramidical shape, rounded at the top and bottom. A large hair rope is put through a hole in the top. Some of the divers use another kind of stone shaped like a half moon, to bind round their belly, so that their feet may be free. At present these are articles of trade at Condatchey. The most common, or pyramidical

* The East-India pearl shell, is well known to be the matrix perlarum (mother of pearl) of Rumphius, or the *Mytilus margaritiferus* of Linnæus; consequently the general term pearl oyster must be erroneous; however, as it has long been in common use, I hope to be excused for continuing it.

stone, generally weighs about thirty pounds. If a boat has more than five of them, the crew are either corporally punished or fined.

The diving, both at Ceylon and at Tutucorin, is not attended with so many difficulties as authors imagine. The divers, consisting of different casts and religions, (though chiefly of Parrawer * and Musselmans,) neither make their bodies smooth with oil, nor do they stop their ears, mouths, or noses with any thing, to prevent the entrance of salt water. They are ignorant of the utility of diving bells, bladders, and double flexible pipes. According to the injunctions of the shark conjurer they use no food while at work, nor till they return on shore, and have bathed themselves in fresh water. These Indians, accustomed to dive from their earliest infancy, fearlessly descend to the bottom in a depth of from five to ten fathoms, in search of treasures. By two cords a diving stone and a net are connected with the boat. The diver putting the toes of his right foot on the hair rope of the diving stone, and those of his left on the net, seizes the two cords with one hand, and shutting his nostrils with the other, plunges into the water. On reaching the bottom, he hangs the net round his neck, and collects into it the pearl shells as fast as possible, during the time he finds himself able to remain under water, which usually is about two minutes. He then resumes his former posture, and making a signal, by pulling the cords, he is immediately lifted into the boat. On emerging from the sea, he discharges a quantity of water from his mouth and nose, and those who have not been long enured to diving frequently discharge some blood; but this does not prevent them from diving again in their turn. When the first five divers come up and are respiring, the other five are going down with the same stones. Each brings up about one hundred oysters in his net, and if not interrupted by any accident, may make fifty trips in a forenoon. They and the boat's crew get generally from the owner, instead of money, a fourth of the quantity which they bring on shore; but some are paid in cash, according to agreement.

The most skilful divers come from Collish, on the coast of Malabar; some of them are so much exercised in the art, as to be able to perform it without the assistance of the usual weight; and for a handsome reward will remain under water for the space of seven minutes; this I saw performed by a Caffry boy, belonging to a citizen at Karical, who had often frequented the fisheries of these banks.

* Fishermen of the Catholic religion,

Though Dr. Halley deems this impossible, daily experience convinces us, that by long practice any man may bring himself to remain under water above a couple of minutes. How much the inhabitants of the South Sea Islands distinguish themselves in diving we learn from several accounts; and who will not be surpris'd at the wonderful Sicilian diver Nicholas, surnamed the Fish *?

Every one of the divers, and even the most expert, entertain a great dread of the sharks, and will not, on any account, descend until the conjurer has performed his ceremonies. This prejudice is so deeply rooted in their minds, that the government was obliged to keep two such conjurers always in their pay, to remove the fears of their divers. Thirteen of these men were now at the fishery from Ceylon and the coast, to profit by the superstitious folly of these deluded people. They are called in Tamul, Pillāl Kadtār, which signifies one who binds the sharks and prevents them from doing mischief.

The manner of enchanting consists in a number of prayers learned by heart, that nobody, probably not even the conjurer himself, understands, which he, standing on the shore, continues muttering and grumbling from sun rise until the boats return; during this period, they are obliged to abstain from food and sleep, otherwise their prayers would have no avail, they are, however, allowed to drink, which privilege they indulge in a high degree, and are frequently so giddy, as to be rendered very unfit for devotion. Some of the conjurers accompany the divers in their boats, which pleases them very much, as they have their protectors near at hand. Nevertheless, I was told, that in one of the preceding fisheries, a diver lost his leg by a shark, and when the head conjurer was called to an account for the accident, he replied that an old witch had just come from the coast, who, from envy and malice, had caused this disaster, by a counter-conjuration, which made fruitless his skill, and of which he was informed too late; but he afterwards shewed his superiority by enchanting the poor sharks so effectually, that though they appeared in the midst of the divers, they were unable to open their mouths. During my stay at Condatchey, no accident of this kind happened. If a shark is seen, the divers immediately make a signal, which, on perceiving, all the boats return instantly. A diver who trod upon a hammer oyster, and was somewhat wounded,

* According to Kircher, he fell a victim amongst the Polypes in the gulph of Charybdis, on his plunging, for the second time, in its dangerous whirlpool, both to satisfy the curiosity of his king, Frederic, and his inclination for wealth. I will not pretend to determine, how far this account has been exaggerated.

thought he was bit by a shark, consequently made the usual signal, which caused many boats to return ; for which mistake he was afterwards punished.

The owners of the boats * sometimes sell their oysters, and at other times open them on their own account. In the latter case some put them on mats in a square, surrounded with a fence ; others dig holes of almost a foot deep, and throw them in till the animal dies ; after which they open the shells and take out the pearls with more ease. Even these squares and holes are sold by auction after the fishery is finished, as pearls often remain there, mixed with the sand.

In spite of every care, tricks in picking out the pearls from the oysters can hardly be prevented. In this the natives are extremely dexterous. The following is one mode they put in practice to effect their purpose : when a boat owner employs a number of hired people to collect pearls, he places over them an inspector of his own, in whom he can confide ; these hirelings previously agree that one of them shall play the part of a thief, and bear the punishment, to give his comrades an opportunity of pilfering. If one of the gang happens to meet with a large pearl, he makes a sign to his accomplice, who instantly conveys away one of small value, purposely, in such a manner as to attract notice. On this the inspector and the rest of the men take the pearl from him : he is then punished and turned out of their company. In the mean time, while he is making a dreadful uproar, the real thief secures the valuable pearl, and afterwards the booty is shared with him who suffered for them all. Besides tricks like these the boat owners and purchasers often lose many of the best pearls, while the dony is returning from the bank ; for, as long as the animal is alive and untouched, the shells are frequently open near an inch ; and if any of them contain a large pearl, it is easily discovered and taken out by means of a small piece of stiff grass or bit of stick, without hurting the pearl fish. In this practice they are extremely expert. Some of them were discovered whilst I was there, and received their due punishment.

Gmelin asks if the animal of the *mytilus margaritiferus* is an ascidia ? See LINN. Syst. Nat. tom. I. p. vi. 3350. This induces me to believe that it has never yet been accurately described : it does not resemble the ascidia of LINNÆUS, and may,

* These are the individuals which farm one or more boats from the renter ; and though they are in possession of them only during the fishery, they are commonly called the owners of the boats.

perhaps,

perhaps, form a new genus. It is fastened to the upper and lower shells by two white flat pieces of muscular substance, which are called by Houttuin* ears, and extend about two inches from the thick part of the body, growing gradually thinner. The extremity of each ear lies loose, and is surrounded by a double brown fringed line. These lie almost the third of an inch from the outer part of the shell, and are continually moved by the animal. Next to these, above and below, are situated two other double fringed moveable substances, like the branchiæ of a fish. These ears and fringes are joined to a cylindrical piece of flesh, of the size of a man's thumb, which is harder and of a more muscular nature than the rest of the body. It lies about the centre of the shells, and is firmly attached to the middle of each. This, in fact, is that part of the pearl fish which serves to open and shut the shells. Where this column is fastened, we find on the flesh deep impressions, and on the shell various nodes of round or oblong forms, like imperfect pearls. Between this part, and the hinge (cardo), lies the principal body of the animal, separated from the rest, and shaped like a bag. The mouth is near the hinge of the shell, enveloped in a veil, and has a double flap or lip on each side; from thence we observe the throat (œsophagus) descending like a thread to the stomach. Close to the mouth there is a curved brownish tongue, half an inch in length, with an obtuse point; on the concave side of this descends a furrow, which the animal opens and shuts, and probably uses to convey food to its mouth†. Near its middle are two blueish spots, which seem to be the eyes. In a pretty deep hole near the base of the tongue, lies the beard (byssus), fastened by two fleshy roots, and consisting of almost one hundred fibres, each an inch long, of a dark green colour, with a metallic lustre; they are undivided, parallel, and flattened. In general the byssus is more than three quarters of an inch, without the cleft (rima); but if the animal is disturbed, it contracts it considerably. The top of each of these threads terminates in a circular gland or head, like the stygma of many plants. With this byssus they fasten themselves to rocks, corals, and other solid bodies; by it the young pearl

* Vide Houtt. Nat. Hist. Vol. I. p. xv. p. 381, seq.

† The depth at which the pearl fish generally is to be found, hindered me from paying any attention to the locomotive power, which I have not the least doubt it possesses, using for this purpose its tongue. This conjecture is strengthened by the accurate observations made on muscles by the celebrated Reaumur, in which he found that this body serves them as a leg or arm, to move from one place to another. Though the divers are very ignorant with regard to the œconomy of the pearl fish, this changing of habitation has been long since observed by them. They allege, that it alters its abode when disturbed by an enemy or in search of food. In the former case they say it commonly descends from the summit of the bank to its declivity.

fish cling to the old ones, and with it the animal procures its food, by extending and contracting it at pleasure. Small shell fish, on which they partly live, are often found clinging to the former. The stomach lies close to the root of the beard, and has, on its lower side, a protracted obtuse point. Above the stomach are two small red bodies, like lungs; and from the stomach goes a long channel or gut, which takes a circuit round the muscular column above-mentioned, and ends in the anus, which lies opposite to the mouth, and is covered with a small thin leaf, like a flap. Though the natives pretend to distinguish the sexes, by the appearance of the shell, I could not find any genitalia. The large flat ones they call males, and those that are thick, concave, and vaulted, they call females, or pedoo-chippy; but, on a close inspection, I could not observe any visible sexual difference.

It is remarkable that some of these animals are as red as blood, and that the inside of the shell has the same colour, with the usual pearly lustre, though my servants found a reddish pearl in an oyster of this colour; yet such an event is very rare. The divers attribute this redness to the sickness of the pearl fish; though it is most probable that they had it from their first existence. In the shade they will live twenty-four hours after being taken out of the water. This animal is eaten by the lower class of Indians, either fresh in their curries, or cured by drying; in which state they are exported to the coast; though I do not think them by any means palatable.

Within a mother of pearl shell I found thirteen *murices nudati* (vide Chemnitz's New System, Cabt. vol. XI. tab. 192, f. 1851 and 1852), the largest of which was three quarters of an inch long; but as many of them were putrid, and the pearl fish itself dead, I could not ascertain whether they had crept in as enemies, or were drawn in by the animal itself. At any rate turtles and crabs are inimical to the animals, and a small living crab was found in one of them.

The pearls are only in the softer part of the animal, and never in that firm muscular column above-mentioned. We find them in general near the earth, and on both sides of the mouth. The natives entertain the same foolish opinion concerning the formation of the pearl which the ancients did. They suppose them formed from dew-drops in connection with sun-beams. A Bráhmén informed me that it was recorded in one of his Sanscrit books, that the pearls are formed in the month of May at the appearance of the Sootee star (one of their twenty-seven constellations), when the oysters come up to the surface of the water,

water, to catch the drops of rain. One of the most celebrated conchologists*, supposes that the pearl is formed by the oyster in order to defend itself from the attacks of the pholades and boreworms. But we may be assured that in this supposition he is mistaken, for although these animals often penetrate the outer layers of the pearl shell, and there occasion hollow nodes, yet, on examination, it will be found, that they are never able to pierce the firm layer, with which the inside of the shell is lined. How can the pearls be formed as a defence against exterior worms, when, even on shells that contain them, no worm-holes are to be seen? It is, therefore, more probable these worms take up their habitations in the nodes, in order to protect themselves from the attacks of an enemy, than that they are capable of preying on an animal, so well defended as the pearl-fish is. It is unnecessary to repeat the various opinions and hypotheses of other modern authors; it is much easier to criticise them, than to substitute in their place a more rational theory. That of Reaumur, mentioned in the Memoirs of the French Academy for 1712, is the most probable, viz. that the pearls are formed like bezoars and other stones in different animals, and are apparently the effects of a disease. In short it is very evident, that the pearl is formed by an extravasation of a glutinous juice either within the body, or on the surface of the animal: the former case is the most common. Between one and two hundred pearls have been found within one oyster. Such extravasations may be caused by heterogeneous bodies, such as sand, coming in with the food, which the animal, to prevent disagreeable friction, covers with its glutinous matter, and which as it is successively secreted forms many regular lamellæ, in the manner of the coats of an onion, or like different strata of bezoars, only much thinner; this is probable, for if we cut through the centre of a pearl, we often find a foreign particle, which ought to be considered as the nucleus, or primary cause of its formation. The loose pearls may originally have been produced within the body, and on their encrease may have separated and fallen into the cavity of the shell. Those compact ones, fixed to the shells, seem to be produced by similar extravasation, occasioned by the friction of some roughness on the inside of the shell. These and the pearl-like nodes have a different aspect from the pearls, and are of a darker and bluer colour. In one of the former I found a pretty large, true oval pearl, of a very clear water; while the node itself was of a dark blueish colour. The yellow or gold coloured pearl, is the most esteemed by the natives: some have a bright, red, lustre; others

* The Rev. Mr. Chemnitz at Copenhagen.

are grey or blackish, without any shining appearance, and of no value. Sometimes when the grey lamella of a pearl is taken off, under it is found a beautiful genuine one, but it oftener happens that after having separated the first coat you find a worthless impure pearl. I tried several of them, taking one lamella off after another, and found clear and impure by turns, and in an impure pearl I met with one of a clear water, though in the centre of all I found a foreign particle. The largest and most perfect pearl which I saw during my stay at Condatchy, was about the size of a small pistol bullet, though I have been told since my departure many others of the same size have been found. The spotted and irregular ones are sold cheap, and are chiefly used by the native physicians as an ingredient in their medicines.

We may judge with greater or lesser probability by the appearance of the pearl shell, whether they contain pearls or not. Those that have a thick calcareous crust upon them, to which serpulæ (sea tubes) *Tubuli marini* irregulariter intorti, *Crista-gali*, *Chamar lazuras*, *Lepas tintinabulum*, *Madreporee*, *Millipore*, *Cellipore*, *Gorgontæ*, *Spongiæ*, and other Zoophytes are fastened, have arrived at their full growth, and commonly contain the best pearls; but those that appear smooth, contain either none, or small ones only.

Were a naturalist to make an excursion for a few months to Manâr, the small island near Jafna and the adjacent coast, he would discover many natural curiosities, still buried in obscurity, or that have never been accurately described.

Indeed no place in the East Indies abounds more with rare shells, than these: for there they remain undisturbed, by being sheltered from turbulent seas, and the fury of the surf. I will just name a few of them: viz. *Tellina foliaca* Lynn. *, *Tell*, *Spenglerii*, *Arca culculata* †, *Arca Noæ*, *solen anatinus* Lynn. *Ostrea Ifognomum*, *Terebulium*, *albidum*, *striatum*, *Turbo scalaris* ‡, *Bula volva* Linn. §, *Vexillum ingritarum*, &c. Amongst the beautiful conc shells: *conus thalassiar-chus Anglicanus cullatus* ||, *amadis thaffiarchus*, *con. generalcis* Linn. *c. capitaneus* **, *c. miles* ††, *c. stercus muscarum*, *c. reteaureum*, *c. glaucus* ‡‡, *c. cereola*, *regia corona murus lapedius*, *canda erminea societas cordium*. There are many other besides those already mentioned, equally valuable and curious.

* The golden tong.

§ Weaver's shuttle.

†† Great sand stamper.

† Mounkscape.

|| Red English admiral.

‡‡ Capt. Gottw.

‡ Royal staircase.

** Green stamper.

The great success of the Rev. Doctor John in conchology when at Tutucorin and assisted by G. Angelbeck, with a boat and divers; and the capital collections made by his agents, whom he afterwards sent there with the necessary instructions and apparatus, may be seen in Chemnitz's elegant cabinet of shells in 4to. (with illuminated plates), and how many new species of Zoophytes he discovered, we learn from another German work by Esper, at Erlangen, the third volume of which is nearly finished.

ASTRONOMICAL OBSERVATIONS MADE IN THE UPPER PROVINCES OF HINDUSTAN.

By WILLIAM HUNTER, Esq.

LATITUDES OBSERVED.

1795.	Place.	Sun or Star.	Latitude.	Remarks.	Mean Latitude.
Feb. 23	Nawabgunge; Chubbooterah E.	☉ M. A.	27 26 46	clear moderate	
24	Alygunge; Mosque S. 66 E.	☉ M. A.	27 30 18	ditto ditto	
25	Doomree; Fort. S. 11 E. dist. 2. 7. Fs.	☉ M. A.	27 33 13	ditto ditto	
26	Erjunpoor; N. 61—89 W. 1. 75. Fs.	☉ M. A.	27 41 12	ditto ditto	
27	Manhera; tents close to the town	☉ M. A.	27 44 45	cloudy ditto	
28	Secundra (named Raw); N. 30. 72. E. 3. 25. Fs.	☉ M. A.	27 41 20	ditto ditto	
March 2	Mindoo; Mr. Orr's house. S. 34. E. 4. Fs.	☉ M. A.	27 37 56	clear ditto	27 38 8
3	Ditto	☉ M. A.	27 38 17	thin flit clouds do	
4	Ditto	☉ M. A.	27 38 11	clear windy	
5	Coel; General Deboigne's house	☉ M. A.	27 54 4	ditto moderate	27 54 6
6	Ditto	☉ M. A.	27 54 8	ditto windy	
15	Joar; dist. 2. 25. Fs.	☉ M. A.	27 36 42	ditto moderate	
16	Hunfeah Gunge; dist. 3. Fs. mosque of Abdul-nubbee-Khan, at Matra. S. 26. W.	☉ M. A.	27 31 33	ditto ditto	
17	Matra; Litcha Bagh	☉ M. A.	27 29 46	ditto ditto	
18	Areeng; Ft. N. 71. E. 1. 5. Fs.	☉ M. A.	27 29 50	ditto ditto	
19	Deeg; gate. N. 72. E. 3. 25. Fs.	☉ M. A.	27 29 6	windy moderate	
20	Nugur; S. 83. E. 3. 7. Fs.	☉ M. A.	27 26 13	ditto ditto	
21	Alinagur; S. 30. 40. E. 1. M. 7. 3. Fs. Cohery Pahang. N. 2. W. 4. M. 2. 3. Fs.	☉ M. A.	27 31 58	ditto ditto	
30	Jablee, or Bijouly; Ft. S. 46. 67. W. 2. Fs.	☉ M. A.	27 22 1	ditto ditto	
31	Ditto	☉ M. A.	27 24 8	brightness of the moon observed the star	27 23 4 5
April 7	Maat; S. 47. E. N. 49. E. 1. 75. Fs.	☉ M. A.	27 37 16	clear moderate	
8	Nop; Fort. N. 20. W. — N. 17. E. 2. Fs.	☉ M. A.	27 51 24	ditto ditto	27 50 50 0
9	Ditto	☉ M. A.	27 50 16	ditto ditto	
10	Tappel; Ft. N. 12. — 62. W. 1. 4. Fs.	☉ M. A.	28 3 9	clear windy	28 3 9 0
11	Ditto	☉ M. A.	28 3 17	ditto moderate	
12	Raghoopoor; N. 8. E. — N. 85. W. 0. 5. Fs.	☉ M. A.	28 14 46	ditto ditto	
13	Duncour; gate. S. 5. E. — 3. 5. Fs.	☉ M. A.	28 21 31	ditto ditto	
14	Soorejpoore; S. 5. W. — S. 50. E. 1. 6. Fs.	☉ M. A.	28 31 10	ditto ditto	
15	Puturgunge; S. 46. — 81. E. 2. 3. Fs.	☉ M. A.	28 36 47	ditto ditto	
16	DEHLI; garden of Shah Nizam-ud-deen	☉ M. A.	28 38 55	ditto ditto	28 38 36 0
	Ditto	☉ M. A.	28 38 32	ditto ditto	
	Ditto	☉ M. A.	28 39 37	ditto ditto	

1795.	Place.	Sun or Star.	Latitude.	Remarks.	Mean Latitude.
April 20	DEHLY; palace of Sufter Jung.	α Hydrac. Aliath.	28 40 47	clear	0
		α m	28 40 24		28 40 12 5
June 15	Secundra; N. W. by N. 2. 3. Fs.	α Draconis.	28 39 37	thin clouds	
19	Anooptheber; Lieut. Christie's bungalow.	α m	28 26 5	clear	
20	Ditto	α m	28 23 5	ditto	
July 9	Camp, on bank of Neem-ca-nullah Bifwah, S. 40. W. 1 M. 2. 2. Fs.	α Pifc. Auf.	27 49 59	ditto	
10	Kagunge; South-east gate, N. 57. W. 5. 4. F.	Ditto	27 48 37	ditto	
1796	Amelia (village 1 mile from Choobepoor), N. 12. W. 1. 8. Fs.	⊙ M. A.	26 36 6	ditto	
Febr. 13	Daipoor; camp close to an old garden.	⊙ M. A.	26 58 25	ditto	
19	Amritgunge; gate. N. 60. W. 4. Fs.	⊙ M. A.	27 5 10	thin fitting cl.	
17	Dehliah; tent near the artillery ground, Cungalah, S. 66. E. one mile.	⊙ M. A.	27 21 48	clear	27 21 51 0
March 3	Ditto	Sirius.	27 21 54	thin clouds,	
4	Neemkarouly; gate. E. o. 8. F.	⊙ M. A.	27 19 2	clear	27 18 58 5
	Ditto	β Can. Maj.	27 18 58	ditto	
	Ditto	Sirius.	27 18 54	clear	27 18 58 5
5	Ditto	δ Can. Maj.	27 19 0	thin clouds,	
	Agut-ke-feray; N. 23.—60. E. 2. Fs.	⊙ M. A.	27 20 53	moderate	
	Ditto	β Can. Maj.	27 21 5	clear	27 21 12 57
	Ditto	Sirius.	27 21 1	calm	
6	Ditto	δ Can. Maj.	27 21 52	windy	
	Aleepoor-R, hera; S. 25.—62. E. 1. F.	⊙ M. A.	27 19 31	clear	
	Ditto	α Urf. Min.	27 20 2	ditto	27 19 39 0
	Ditto	β Urf. Min.	27 19 35	moderate	
7	Ditto	β Urf. Min.	27 19 27	ditto	
	Beechmar; N. 37.—77. E. 1. F.	α Draconis.	27 20 31	ditto	27 20 18 0
		β Urf. Min.	27 20 39	ditto	
8	Jumlapoor; N. 20.—39. E. 1. 6. F.	⊙ M. A.	27 19 57	ditto	
	Ditto	β Can. Maj.	27 25 31	ditto	27 25 11 0
	Ditto	Sirius.	27 25 5	ditto	
9	Sukeet; Fort. S.—S. 51. E. 1. F.	δ Can. Maj.	27 24 54	ditto	
	Ditto	α Draconis.	27 25 15	ditto	
		α Urf. Min.	27 26 39	alt. suspected	
		β Urf. Min.	27 26 39	too great	
10	Ditto	β Urf. Min.	27 25 24	ditto	27 26 20 0
	Ditto	β Urf. Min.	27 27 5	ditto	
	Ditto	⊙ M. A.	27 25 50	windy	
	Ditto	β Urf. Min.	27 26 42	calm	
	Ditto	β Urf. Min.	27 26 42	ditto	
	Ditto	β Urf. Min.	27 25 57	ditto	

1796.	Place.	Sun or Star.	Latitude.		Remarks.	Mean Latitude.	
			°	'		°	'
March 11	Etap; S. 33. E.—S. 12. W. South gate, S. 7. E. 2. 1. F.	☉ M. A.	27	34	clear	27	34
	Ditto	β Can. Maj.	27	33	windy	27	34
	Ditto	Sirius	27	34		27	34
	Ditto	♂ Can. Maj.	27	35		27	34
	Ditto	β Urf. Min.	27	34		27	34
	Ditto	β ♄	27	34		27	34
12	Nadowly; Ft. S. 76. E.—N. 88. E. 3. 5. Fs.	☉ M. A.	27	34	clear	27	34
	Ditto	Sirius	27	34		27	34
	Ditto	♂ Can. Maj.	27	34	moderate	27	34
	Ditto	β Urf. Min.	27	35		27	34
	Ditto	β ♄	27	34		27	34
13	Secundra (Raw); S. 74. E. N. 35. W. close	☉ M. A.	27	41	windy	27	42
14	Mulloy, Mr. Stewart's house	☉ M. A.	27	42	ditto	27	42
	Ditto	α Draconis	27	42		27	42
	Ditto	α ♄	27	42	calm	27	42
	Ditto	β Urf. Min.	27	42		27	42
	Ditto	α ♄	27	42		27	42
15	Jelaly; Mr. Longcroft's house; N. E. 3. 5. Fs.	☉ M. A.	27	51	ditto	27	52
	Ditto	β Urf. Min.	27	52		27	52
	Ditto	β ♄	27	52		27	52
16	Bellah, Mr. Lenham's house; S. 85. E. 4. 7. Fs.	α Draconis	27	55	ditto	27	54
	Ditto	α ♄	27	53		27	54
	Ditto	β Urf. Min.	27	54		27	54
	Ditto	α ♄	27	54		27	54
17	Atrawley, North gate; S. 16. W. 2. 7. Fs.	♂ Can. Maj.	28	3	moderate	28	2
	Ditto	α Draconis	28	2		28	2
	Ditto	α ♄	28	1	thin clouds	28	2
	Ditto	β Urf. Min.	28	2		28	2
	Ditto	β ♄	28	2		28	2
18	Debay; S. 2. E.—S. 13. W. North gate, S. 6. W. 7. 2. Fs.	☉ M. A.	28	14	clear	28	14
20	Anooghcher; Col. Ware's bungalow	☉ M. A.	28	23	clear	28	23
21	Ditto	☉ M. A.	28	23	ditto	28	23
22	Ditto	α ♄	28	22	clear, calm, stars rather obscured by the brightness of the moon	28	23
24	Ditto	β ♄	28	23		28	23
	Atrawly; South gate, dist. 4. 6. Fs.	♂ Can. Maj.	28	1	calm	28	1
	Ditto	♂ Can. Maj.	28	1		28	1
	Ditto	γ Navis	28	2		28	1
	Ditto	α Hydrae	28	1		28	1
29	Aly gunge; E. gate, dist. 1. 3. Fs.	γ Navis	27	30	windy	27	29
	Ditto	α Hydrae	27	29		27	29
	Ditto	β Urf. Maj.	27	29		27	29
	Ditto	γ Urf. Maj.	27	29		27	29

May 30	Betourah; N. 62. E. 1 mile, right hand bank of Ganges	α m α Draconis α Δ β Urf. Min.	$\circ$ 26 2 52 26 1 23 26 1 29 26 1 51	' 2 1 1 1	" 52 23 29 51	° 26 1 54 0
31	Yacoot gunge; (small village left hand bank of Ganges); Sharadpoor; S. 22. W. about 2 miles	α m Aliath. α m α Δ Aliath. m α Draconis α Δ α Draconis β Urf. Min.	25 40 2 25 24 54 25 25 54 25 25 14 25 17 47 25 17 31 25 16 6 25 16 42 25 9 6 25 10 20 25 9 43	40 24 25 25 17 17 16 16 9 10 9	2 54 54 14 47 31 6 42 6 20 43	windy moderate calm
June 1	Allahabad; Ft. S. E. angle					25 25 21 0
2	Mudura, near Litchageer					25 17 1 0
3	Mirzapoor; E. 1 mile					25 9 43 0

ECLIPSES OF JUPITER'S SATELLITES, observed with DOLLOND'S Achromatic Telescope magnifying 80 Times.

Apparent Time.	Sat.	Im. or Em.	Place of Observation.	Longitude.	Weather.	Remarks.
1794. D. H. M.	S.					
Jan. 24 17 28 44	1	Im	Tandah	82 11 0	a little hazy moderate	The brightness of Jupiter made the satellite indistinct.
March 4 15 54 8	1	Im	Lucknow (Mr. Orr's house)	80 39 15	clear calm	
31 14 59 15	2	Im	Meinpoory	78 30 15	ditto windy	
April 29 12 41 39	1	Im	Truttegurgh	79 18 0	ditto moderate	
May 2 14 44 37	2	Im	Ditto	79 16 15	ditto ditto	
13 16 30 16	1	Im	Ditto	79 18 30	ditto windy	The planet was clouded a few seconds, about the time of immersion. The satellite is certainly visible till this time; as the sky was not very clear, the immersion may have been some seconds later. As the telescope was shaken by the wind, the emersion was probably a little earlier. The observation very distinct; but there is some uncertainty in the time, from an irregularity in the watch this day. It had been losing at the rate of 58 seconds a day, mean time; but between the 4th, and 7 minutes and a quarter, and the 5th, at the same hour, lost 2 minutes 59 seconds, from being wound up five hours later than usual, i. e. at 5 P. M. on the 4th instead of noon. I observed again at a quarter after four P. M. and found the loss, in 9 hours apparent time, to be 40 seconds. Allowing this rate from 4 A. M. to 7 and a quarter, and the loss in that time will be 16 seconds, giving watch flow for apparent time, 2 hours, 18 minutes, 30 seconds, at the time of observation, and this is the quantity here allowed. Planet rather near the horizon.
June 3 14 19 21	2	Im	Kankpoor (Mr. Yeld's bungalow)	79 55 0	ditto moderate	
1795. March 23 17 9 31	1	Im	Camp near Alingar	76 51 15	ditto ditto	
May 1 15 41 42	1	Im	DEHLI, Suffden Jung's house	76 42 0	thin clouds calm	
3 16 13 43	2	Im	Ditto	76 48 45	clear moderate	
17 13 58 6	1	Im	Ditto	76 48 15	ditto ditto	The planet was clouded a few seconds, about the time of immersion. The satellite is certainly visible till this time; as the sky was not very clear, the immersion may have been some seconds later. As the telescope was shaken by the wind, the emersion was probably a little earlier. The observation very distinct; but there is some uncertainty in the time, from an irregularity in the watch this day. It had been losing at the rate of 58 seconds a day, mean time; but between the 4th, and 7 minutes and a quarter, and the 5th, at the same hour, lost 2 minutes 59 seconds, from being wound up five hours later than usual, i. e. at 5 P. M. on the 4th instead of noon. I observed again at a quarter after four P. M. and found the loss, in 9 hours apparent time, to be 40 seconds. Allowing this rate from 4 A. M. to 7 and a quarter, and the loss in that time will be 16 seconds, giving watch flow for apparent time, 2 hours, 18 minutes, 30 seconds, at the time of observation, and this is the quantity here allowed. Planet rather near the horizon.
27 14 29 15	3	Em	Ditto	78 2 45	windy ditto	
28 13 18 41	2	Im	Ditto	76 43 15	ditto ditto	
June 4 15 55 0	2	Im	Ditto	77 8 45	ditto ditto	
22 10 22 51	2	Im	Anoopstheer	77 48 45	ditto moderate	
July 11 10 38 40	1	Im	Erjunpoor	78 34 45	ditto calm	The planet was clouded a few seconds, about the time of immersion. The satellite is certainly visible till this time; as the sky was not very clear, the immersion may have been some seconds later. As the telescope was shaken by the wind, the emersion was probably a little earlier. The observation very distinct; but there is some uncertainty in the time, from an irregularity in the watch this day. It had been losing at the rate of 58 seconds a day, mean time; but between the 4th, and 7 minutes and a quarter, and the 5th, at the same hour, lost 2 minutes 59 seconds, from being wound up five hours later than usual, i. e. at 5 P. M. on the 4th instead of noon. I observed again at a quarter after four P. M. and found the loss, in 9 hours apparent time, to be 40 seconds. Allowing this rate from 4 A. M. to 7 and a quarter, and the loss in that time will be 16 seconds, giving watch flow for apparent time, 2 hours, 18 minutes, 30 seconds, at the time of observation, and this is the quantity here allowed. Planet rather near the horizon.
Nov. 21 6 42 30	2	Em	Futtegurgh	79 49 15	ditto ditto	
21 7 23 22	1	Em	Ditto	80 2 45	ditto ditto	
Dec. 14 7 29 12	1	Em	Ditto	79 49 15	ditto ditto	

quarter, and the 5th, at the same hour, lost 2 minutes 59 seconds, from being wound up five hours later than usual, i. e. at 5 P. M. on the 4th instead of noon. I observed again at a quarter after four P. M. and found the loss, in 9 hours apparent time, to be 40 seconds. Allowing this rate from 4 A. M. to 7 and a quarter, and the loss in that time will be 16 seconds, giving watch flow for apparent time, 2 hours, 18 minutes, 30 seconds, at the time of observation, and this is the quantity here allowed. Planet rather near the horizon.

The Variation of the Compass, observed by the Sun's Azimuth. N.B. Both the Altitudes and Azimuth were taken with the Theodolite.

1792	Place.	A. or P. M.	Altitude.	Azimuth.	Variation.	Mean.
			° ' "	° ' "		° ' "
Feb. 23	Baad	P	22 39 0	116 2 0 E	1 8 0 E	
May 1	Oujein	A	11 25 53	78 8 0	0 2 0 E	} 0 19 30 W
1796 May 2	Ditto	A	14 4 45	79 34 0	0 41 0 W	
April 9	Futteghurgh	P	1 20 0	82 20 0	1 37 0 E	} 1 42 13 E
12	Ditto	A	22 30 57	90 19 0		
			23 20 57	89 52 0		
			23 54 0	89 33 0	1 47 27 E	

1796, April 15, at Futteghurgh; observed the following distances of the Moon from Aldebaran and Spica.

Time by Watch.			Distant Moon and Aldebaran, nearest Limb.			Time by Watch.			Distant Moon and Spica, farthest Limb.		
H.	M.	S.	°	'	"	H.	M.	S.	°	'	"
6	43	22	61	10	51	8	1	58	72	54	30
	50	20		13	0		5	10		52	15
	57	5		15	15		8	46		51	15
7	3	45		18	0		12	2		49	45
	9	5		19	45		15	49		47	30
6	56	43	61	15	15	8	8	45	72	51	3

Also the following Altitudes for rectifying the Watch :

Time by Watch.	Altitude Aldebaran.	Time by Watch.	Altitude Spica.
7 36 58	24 39 45 double angle	7 46 4	64 40 0 double angle
		48 33	64 36 30
		51 9	65 34 15

Error of the Sextant 2' 15" subtractive.

Results.	H. M. S.
Watch slow by Aldebaran	46 49
by Spica	42
	46
	47

Mean slow for Apparent Time 46 46

	Apparent Time	Apparent Moon.	Altitude Star.	True distance : centre Moon and Star.	Longitude.
	H. M. S.				
1st set Aldebar.	7 43 29	78 49 41	21 7 9	61 38 36	79 41 45
2d set Spica	8 55 31	64 20 48	35 54 52	72 14 54	80 7 45

Longitude of Futteghur by mean of both sets 79 54 45.

NOTE

NOTE

Respecting the Insect described in Page 948.

THIS insect is the Meloë Chihorri of Linnæus. The following extract from a late publication will shew how much the gentlemen of the faculty are indebted to Captain Hardwicke for having pointed out to them so valuable an addition to their Materia Medica in this country.

“ I shall only observe, that the Papilio, &c. are here extremely common, as is
 “ likewise the Meloë Cichorii Linn. towards which Doctor Manni has endeavoured to direct the attention of his countrymen. It remains from May to August, and especially during June and July, in astonishing quantities, not only upon the cichoreum but also upon the cerealis carduus and cynora cardunculus.
 “ The common people have long used the liquor that distils from the insect, when the head is torn off, for the purpose of extirpating warts: and Mr. Casimir Sanfo has often employed it in lieu of the common blistering drug: but to render it more generally useful, Doctor Manni has made a variety of experiments, and found that forty-five grains of the Meloë, and fifteen grains of Euphorbium fermented with flour and common vinegar, and well mixed up, made a most excellent blistering plaister. The proportions must be increased, or diminished, according to the age, sex, and constitution of the person; but the above-mentioned quantity usually produces a proper effect in thirteen or fourteen hours. These insects are collected morning and evening, and put into a covered vessel, where they are kept until they are dead, when they are sprinkled with strong vinegar, and exposed to the hot sun, until they become perfectly dry; after which they are put into glass bottles, and carefully kept from humidity.”

Travels to Naples by Charles Ulysses, of Salis Morschlins.—Translated from the German, by Anthony Aufrere, Esq. London, 1795, p. 148.

NOTE

NOTE

Referring to Page 344 of this Volume.

HAVING lately passed Benares, I took that opportunity of again examining the observatory, and ascertained the circle which stands on the elevated terrace to the East (respecting the position of which I formerly spoke with some degree of hesitation) to be situated in a plane parallel to the equator.

W. HUNTER.

Sept. 28, 1797.

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1797.

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